THINKERS ON EDUCATION

Editor: Zaghloul Morsy

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ALAIN
ARISTOTLE
AVICENNA
BELLO
BETTELHEIM
BINET
BLONSKY
AL-BOUSTĀNĪ
BUBER
CAI YUANPEI
CLAPARÈDE
COMENIUS
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COUSINET
DAWID
DECROLY
DEWEY
DIESTERWEG
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Thinkers on education

Volume I

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28.2.2001
vol. I

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Zaghloul Morsy

UNESCO Publishing/Oxford & IBH Publishing

370·92
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28.2.2001
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First published by the United Nations Educational, Scientific and Cultural Organization
© UNESCO 1993, 1994
© UNESCO 1997 for this edition
ISBN UNESCO: 92-3-103398-0 (set of four volumes)
ISBN Oxford & IBH: 81-204-1171-4 (set of four volumes)
81-204-1172-2 (volume 1)

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Printed in India

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First published [illegible]
Organization

© UNESCO 1993, 1994
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ISBN UNESCO: 92-3-102798-0 (set of four volumes)
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The paideia galaxy

Zaghloul Morsy

All dictionaries tell us that the word 'galaxy' signifies the immense nebulous cluster of stars, to which our own sun belongs, commonly known as the Milky Way. By analogy, we also speak of media galaxies, of galaxies of politicians or multinationals, just as Marshall McLuhan spoke of the 'Gutenberg galaxy'. Here, we concern ourselves with thinkers.

As for 'paideia', *the word and the concept both refer to Werner Jaeger's monumental work* Paideia: The Ideals of Greek Culture.[1] *In the words of the author:*

> *Indeed, it* [paideia] *is a difficult thing to define; like other broad comprehensive concepts (philosophy, for instance, or culture), it refuses to be confined within an abstract formula. . . .*[2] *It is impossible to avoid bringing in modern expressions like* civilization, culture, tradition, literature, *or* education. . . . *Each of them is confined to one aspect of it: they cannot take in the same field as the Greek concept unless we employ them all together.*[3]

Elsewhere (in Note 7 to the first chapter of Volume I) Jaeger states that: 'The first appearance [of the word 'paideia'] is in Aeschylus (The Seven Against Thebes, *18*), *where it still means . . . upbringing or child-rearing.'*[4]

Earlier, in Note 5 to the same chapter, Jaeger explains:

> *This 'ideal of culture' (in Greek,* areté *and* paideia) *is a specific creation of the Greek mind. The anthropological concept of culture is a modern extension of this original concept; but it has made out of a concept of value a mere descriptive category which can be applied to any nation, even to the culture of the primitive. . . . It tends to make culture into a kind of museum, i.e.* paideia *in the sense of the Alexandrian period when it came to designate* learning.[5]

'Immense cluster of stars', 'civilization', 'culture', 'tradition', universality ('taking them all together'), 'child-rearing', 'instruction', 'shaping of character'.[6] *It is from a combination of these threads, the particular ideals of the Greeks translated, or, if you will, extended, to the universal plane, and with the backing of two dictionaries, one specialized and Spanish, the other general and English, that the fabric of this collection has been woven.*

A gap to be filled

There is more than one reason for undertaking this project.

First of all, in these exciting but curiously a-historical, a-philosophical times, when frontiers are crumbling, slogans take the place of dogma, and the image exercises tyrannical power, it is imperative to return precisely to the philosophical, historical and cultural texts, in the splendid tradition of the 1920s and 1930s, that of Croce, Toynbee, Curtius and Braudel, when the wood could be seen as well as the trees, and analytic and synthetic minds did not focus narrowly on a single civilization, culture or history but encompassed everything simultaneously. In other words, we need a global approach, perhaps our only hope of truly understanding history.

Today, by contrast, in the social sciences and more especially in the sphere of education, we seem to be stumbling through a selva oscura, *without guide or landmarks. New 'theories' and 'reforms' are noisily proclaimed, only to fall almost instantaneously apart as a result of their internal contradictions, their inconsistencies and their detached approach, each disregarding its antecedents in the same cultural field. Moreover, what has been thought and written is being thought and written elsewhere. Ignorance of so-called foreign languages, politics and the pace of translation cannot explain everything.*

This means that more than ever, in politics as in culture, in history as in education, we need a frame of reference, an Ariadne's thread. We need to draw upon the resources of those thinkers who, directly or indirectly, have shaped us all. It is continuity, critical and informed, that we lack the most, and educational thought is of precisely the kind that enables us to fill in the blanks, to ensure that continuity. It can readily be accepted as an essential dimension of the history of the human mind. Indeed, with little risk of exaggeration, it could be said that it is the mould in which all other forms of thought (philosophical, cultural, aesthetic, historical, etc.) are cast. The voices we are to hear will convince us of this.

A second reason is that, too often, when we speak of the 'founders of education' we have in mind only the thinkers and educationists who, in the West and elsewhere, with a few obvious exceptions, have devoted themselves to education to the exclusion of all else: in short, education as a game preserve or private fief. Yet philosophers, politicians, sociologists, scientists, theologians, novelists, historians, poets and essayists of every period and culture have had much to say on the subject of education which, rather than just skirting round the edges, they have generally approached head on. Examples? Kant, al-Fārābi, Bello, Nyerere, Ibn Khaldūn, Grundtvig, Tolstoy, Tagore, to name but a few. There is no reason, epistemological or other, for disqualifying them from the pantheon of the paideia, *at least as compiled and imposed by dictionaries, encyclopedias and histories of education. Not only do these outsiders play an important role, they often outflank the theories and received ideas of professional educationists, some of whom, it must be said, tend to make a business out of their discipline. More generally, as soon as the two are brought together on equal terms, we are treated to a lesson in modesty (no one has a monopoly on thought and ideas) and discern a certain synergy at work, since, in* *different degrees and from different angles, they share the same concern for* paideia *in the multiple and integral sense in which it was understood by Werner Jaeger.*

The third reason is even more compelling. Every researcher and conscientious politician knows or suspects that, over the last twenty-five years or so, education has become progressively more transnational, in other words international, not by choice but by necessity. Whether it is a question of the reform of systems or contents, of docimology, teacher-training or management, of planning, child psychology or the tempo of the school year, there is a close relationship of interdependence – thanks also to regional integration – between what is thought and done in one country and what is thought and done elsewhere. UNESCO and the IBE play the role of world orchestrator and data bank, supported by regional and subregional bodies and non-governmental organizations on several continents, and by the work of international conferences and congresses. This means that the age of insularity in the educational sciences is dead and gone. By extension, how are we to understand in depth, through its successive strata, the philosophy, explicit or implicit, that underlies a particular system of education if, beyond the play of fashion, surface eddies and the ups and downs of politics, we know little or nothing about the thinkers who inspired it? In the absence of such knowledge, the notion of comparative education, for example, loses much of its credibility.

There is a need for a broader view, for landmarks and guidelines, the demands of education and research grown ever more interdependent and intercultural, the rejection of exclusivity. Is there more?

One final reason sums up all the rest. Clearly, there is a need to fill a gap by bringing together in one and the same work monographs presenting and appraising, in our own terms and with the tools available to us today, the great figures who, in one way or another, have left their mark on educational thought.

Certainly, this has been attempted before, in both the distant past and more recently, but generally in the form of collections of essays by a single *author, drawing on previously published texts, defending a* single *personal thesis or examining particular aspects of the work of a particular educator chosen within a* single *cultural field.*[7] *Other attempts have taken the form of essays written by an author or group of authors on a certain number of thinkers, from an historical, sociological or philosophical standpoint and within the context of Western culture.*[8]

There are also, of course, general or more specifically educational encyclopedias and dictionaries but, needless to say, whereas some thinkers are given detailed treatment, many are overlooked, and others, though by no means negligible, are consigned to footnotes.[9] *To my knowledge, the only similar project is the lone work of Miroslav Cipro, which is, unfortunately, not easily accessible, having been written in Czech.*[10]

This remark on accessibility prompts two others. Most educators, research workers and teachers in the social and educational sciences suffer from a handicap and a shortcoming. The handicap is that, in this field, knowledge of the existence of a work that one cites is not the same, for someone who cannot read the language in which it is written, as having genuine access to it, whatever the quality of the summaries or extracts to be found in encyclopedias, dictionaries and anthologies.

The shortcoming is that, however bold and conscientious the solitary author may be, dealing with thinkers who lived in many different eras and wrote in many different languages from many different perspectives, without really having direct access to the original texts, inevitably involves approximations and losses. And despite a very real and universal effort to promote translation, the field of education is nowhere particularly well served.[11]

For all these reasons, not only is there a clear need for the present collection, it also appears in the nick of time.[12] *But what exactly is so special about it?*

No ordinary task

Since Prospects *introduced its 'Profiles of Educators' feature a dozen or so years ago, I have often observed in those I have spoken to about it – cultured professionals though they be – a sort of astonishment mingled with incredulity.*

They were aware that Rousseau, Comenius, Claparède, Montessori, Pestalozzi and Aristotle had studied the problems of education, but Tolstoy, Gandhi and Nyerere – well really!

Others frankly admitted that they had never heard of, say, al-Boustānī, Cai Yuanpei, Eötvös, Martí, Naïk, or even Vigotsky! Who are they? Where do they come from? When did they live? What have they written?

Of course, these reactions, authentically observed, concerned one or perhaps two names. And, of course, a Lebanese, a Chinese, a Hungarian, a Cuban (or a Latin American), an Indian, and now a Russian would react quite differently: they would recognize one of their own.

What conclusions should we draw from these observations? Simply that the world of education is much wider than we supposed, that it defies ethnocentrism, and that it is not the exclusive preserve of professional educationists.

Here then, to satisfy the curiosity of some and re-arouse the interest of others, are 100 essays written by some 100 internationally, regionally or nationally recognized specialists. If they do not share the same mother tongue as the thinker they are writing about, they have mastered it and are thus perfectly familiar with and have direct access to the work. The authors studied, like those who study them, all take very different philosophical positions, but they share a fascination with childhood, a passion for education, a concern for the development of both, and a lively interest in the filiation and migration of ideas. This is all that is needed for them to be welcome here.

But why Confucius and Mao Zedong? Why al-Fārābī and Taha Hussein? Why Sarmiento and Vasconcelos? A first, possibly facile reply would be to turn the question round. Why Durkheim – I choose a name at random – and not Ibn Khaldūn, Bello or Nyerere? Did Durkheim leave his mark on European thought as Ibn Khaldūn did on Arab and non-Arab thought? Did he change the direction of his country's educational policy as did – whether for better or for worse, history will tell – Nyerere or Mao Zedong? Certainly, they were neither scholars nor educationists, but their imprint, visible or hidden, still remains on the cultural and hence *educational attitudes of China, the Arab-Islamic world, the American sub-continent, etc.*

A second reply would be that, whether of the past or the present, those thinkers, who were also reformers, bear witness in their writings and their deeds to those transcultural migrations of ideas and that interplay of influence to which the history of education as a specialization would do well to extend its research and discourse. It is not often that we encounter in such studies an analysis of the influence of a particular thinker on a particular politician (Diderot sketching out the Plan of a University for the Government of Russia *at the request of Catherine the Great, for example). Moreover, although, in accordance with the classical exercise of parallels or of 'X as a reader of Y', it is interesting to analyse Rousseau's readings of Locke or Wallon's readings of Rousseau, it is no less interesting to know about Ibn Miskawayh's readings of Aristotle, Andrés Bello's of Humboldt or Cai Yuanpei's of Dewey.*

Clearly, this extension of the freedom of the city to non-'professionals' considerably expands the coverage.

Far off, in terms of time, the most ancient of the authors studied, Confucius, is presumed to have been born five and a half centuries before the Christian era (551 B.C.), some eighty years before the master thinker of Western civilization Socrates (470 B.C.), himself indissolubly linked to Plato (428 B.C.) and profiled here as one caught up in the wake of his disciple. In our own day, figures still very much alive continue to animate, directly or indirectly, the universal debate on education (Freire, Husén, Illich, etc.). In the intervening period, as we progress through these pages, twenty-five centuries will elapse with barren stretches (everywhere there are 'dark centuries') and periods of incandescent light.

As regards geographical space, topography may well have the edge over chronology. Through all the centuries touched upon, we shall have come to know China, Japan, India, the Near and Middle East (Iraq, Persia, Syria, Egypt, Lebanon, Israel), the Maghreb, Greece, the Balkan countries (Bulgaria, Croatia), Italy, Spain, Portugal, France, Switzerland, Belgium, the Netherlands, England – and later the United Kingdom – Denmark, Sweden, Germany, Poland, Hungary, Czechoslovakia, Russia, and the USSR. We shall have touched down in Africa and made stopovers in Argentina, Brazil, Chile, Cuba, Mexico, Uruguay and Venezuela before reaching the United States.

To speak of travelling in space and time is also to speak of an exploration of religions, cultures and ideologies and the circumnavigation of political regimes of every description, from autocracies and imperial or monarchical dynasties to democracies – formal, infant or triumphant. For, it must be said, all these thinkers were confronted with the political, religious, moral and social problems of their country and their time, which have unavoidably left their mark on their writings. Time and place are not absent from any of these texts, nor are they a matter of indifference, and this more systematized approach – the thinker in *his time – should ensure a more honourable place for the history of education and rescue it from the fringes of the social sciences to which it is often relegated.*

Finally, this search for the universal is aimed at compelling, as it were, historians, research workers and educators, and any other potential readers, to open up *their minds to other cultures, to want to know more of them, not through clichés or approximately by allusion, but in some depth, through the prism of their most illustrious thinkers. It is not only that all these thinkers always have something to offer, over and above particular values and cultures. If it is acknowledged that no theory can acquire force, clarity and value unless it can withstand the critical test of all other theories – ancient and modern, foreign as well as home-grown – then this breaking down of barriers and direct confrontation can only result in the enrichment of knowledge.*

Based on these principles, the present collection seems to me to be the first systematic attempt to present, in three widely used languages,[13] *a comprehensive and first-hand view of the thought of the great educators, of every age and culture.*

Without being forced to conform to a rigid pattern, the authors were asked to place the thinkers in their period, to outline their intellectual journey, to describe, with quotations, their approach and their views on education, linking them, where appropriate, to their over-all philosophy, to pick out those elements in their work that still have meaning for us today and those that now appear irrelevant or outmoded, and finally to bring out the influence their thought has had, in their own country or a particular group of countries, or, if such be the case, internationally. Each essay is rounded off with two bibliographies: the first lists the works actually concerned with education, while the second, selective – and unavoidably subjective – is on the thinker and is intended to encourage readers to dip into the works themselves and to help them to pursue their research.

Unsurprisingly, with its wide range of authors from very different cultural and university backgrounds, the work offers a broad spectrum of approaches, methods and styles and no less inevitable divergences of viewpoint and abrupt changes of tone, even though there is a general tendency to uniformity, imposed by the very nature of international research in education. Although it is easy to pick out certain 'family likenesses' (Latin, Anglo-Saxon, Germanic, Arab-Islamic), to identify those who belong to a particular school of thought or even to see the spirit of language at work, with its facilities and constraints, it was none the less to be expected that an author would not write about Confucius in the same way as about Ferrière or about Hegel or Read in the same way as about Fukuzawa, Ibn Miskawayh, Noikov or Tagore. In short, each essay reflects, in its own way, not only its author's idiosyncracies but also the present state of educational research in the country from which he or she comes.

In connection with the singularity, specificity and scope of the collection, I need hardly add that only UNESCO could conceive and undertake such a project, bring it to a successful conclusion and place its fruits at the disposal of the entire international community.

Alphabetical 'disorder'

One hundred personalities, twenty-five centuries, five continents, dozens of countries, humanity's principal religions and cultures: how should this mass of documentation, once to hand, be organized and presented?

On the transcultural scale – sometimes even within the same culture – any attempt to divide history into periods must needs be artificial or arbitrary. The existing 'histories of education' are all set in an identical mould, and it cannot be held against them. Nevertheless, it must be recognized that, for example, the labels 'Antiquity', 'Middle Ages' and 'Renaissance' have a different connotation in Europe than they have for the Chinese, Indian, Japanese, Arab-Islamic and African civilizations, or indeed for the American sub-continent, so that the pages sometimes devoted to the latter in such histories, however well intentioned, do no more than skim the surface, bobbing about in a project and discourse which, in the final analysis, do not concern them. Such an approach would have been inappropriate. Admittedly, there are excellent national histories of education and estimable world histories, but a true universal history of education has still to be written. However, this is beside the point: this collection, albeit steeped in history, makes no claim to be a 'history of education'.

Other categorizations, classifying the thinkers according to the educative model on which their work is based, suggest themselves: reformist, conservative, domesticating, liberating, directivist/non-directivist, secularized-humanist, religious-authoritarian, Prussian, maieutic, abolitionist, libertarian, politico-ideological, centred on culture or on pedagogy, centred on the teacher or on the pupil, on the rights of the child, on the authority of the adult, on the demands of society, democratic-republican, feudal, monarchist, Marxist-Leninist, etc. Each of these models is represented here by one or other of its proponents or one or other of their interpreters, but to have adopted this type of classification would have turned the collection into an ideological tribunal or personal honours list.

Other possibilities include presenting the thinkers according to their nationality; their country; the schools and currents of thought to which they claim to belong or to which they have been assigned; grouping them according to the philosophical problems that they pose; by cultural field; according to whether they were or are pure theorists or educationists, or work on the margins of the educational world; by chronological order; according to civil status; from Confucius and Plato to Freire, Husén, Illich, Bettelheim and Skinner. There would have been a serious risk of confusion and bottlenecks, with jostling for position in certain 'golden ages' and great voids in periods lacking thinkers worthy of inclusion.

Irrespective of all considerations of ideology or 'diplomacy', none of these categorizations would appear to be viable because, as organizational principles, they would all be arbitrary and none would permit a global treatment. Of course, they could all be applied here and there, to earlier periods or to the present day, but none would work invariably for all the thinkers at once. To have opted for one or another or to have attempted some sort of mélange *would inevitably have brought the whole structure crashing down. As a strict methodology, therefore, it was necessary to forgo these classifications, though, as we read on, they all re-emerge, in the procession of centuries and faces, in the extreme diversity of customs, creeds and tongues.*

The only other solution was to arrange the thinkers in alphabetical order.[14] *This holds many surprises, one of the first being most definitely the shock of unfa-*

miliarity. Even the experienced reader, who has perfectly assimilated the notion of the dictionary as a genre and a mode of thought and research, will not be spared.

To take only the first ten names of the present volume, it may be assumed that Alain (1868–1951) means something to the English-, French- or Spanish-speaking reader. Immediately after Alain comes Aristotle (384–332 B.C.*). However culturally authentic or perhaps tenuous the relationship with Alain, it is an inverse relationship. But when we reach Avicenna (Ibn Sinā) (*A.D. *980?–1037;* A.H. *370?–428) we are probably on the shores of what for most readers is* terra incognita. *Perhaps the thread can be picked up again with Bello and no doubt with Bettelheim and Binet, but it breaks once more with Blonsky, al-Boustānī, Buber and Cai Yuanpei. In a few dozen pages we will have made the leap from our own time to Antiquity, from the eleventh century to the effervescence of the nineteenth century in Latin America and the Near East, and to the twentieth century and its revolutions.*

In the same sweep, we will have come to know the France of the Third Republic, the Greece of Alexander the Great, the Persia of the Buyids, Chile, the United States, the USSR, Israel, Lebanon and China with, in the background, for each country, the political context and the state of development of its education 'system'. This constitutes a telescoping of time and place, but also of theories of education and their underlying world views.

Progressing from Aristotle and Avicenna to Binet and Bettelheim by way of al-Boustānī, Blonsky and Buber, needless to say, along the road new concepts have appeared in the social sciences and in our knowledge of both children and adults. Some of these concepts are now obsolete, whereas others, with the passage of time, have retained their force, enriching retrospectively our knowledge of epochs and peoples. There are concepts, but also approaches, fields of research, methods and theories. The work of Alain and that of Buber are what they are – intangible testimonies, perfectly inscribed in their particular time and place and appropriate to the state of knowledge from which they emerged. What is fascinating is that, in their analyses of their contributions, the essayists analyse them differently from the way Rousseau analyses Locke, or how Locke analysed Montaigne, Fröbel's analysis of Pestalozzi, Cai Yuanpei's of Dewey or Ibn Miskawayh's of Aristotle, so that before our eyes – and throughout these texts – a kaleidoscopic dual knowledge is deployed: a knowledge of education, such as the thinkers perceived and possessed, and a knowledge of the modern science of education, backed up by contributions from other social sciences with which the thinkers themselves were unacquainted.

In evoking this naturally non-linear dual process, it is not, of course, my intention, by shuffling together a mass of ideas, approaches and techniques, to suggest some unique, coherent, progressive vision of education that transcends ages, continents and cultures. The juxtaposition of these theories and their representatives within this volume has the advantage, it seems to me, of contracting space, giving consistency and density to history, highlighting philosophical and/or educational problems that transcend civilizations, and building bridges between cultures. Failing an impossible synthesis, we must content ourselves with the hope that this singular proximity will at least arouse in the reader a measure of curiosity and a desire to know more about others, from their living works, and perhaps to draw *from them compelling arguments for some other educational project, better informed and less compartmentalized.*

Accordingly, while this collection may constitute a forum within which 100 thinkers hold a dialogue, contradict each other, rebut each other and, ultimately, enrich each other by force of their very differences, and in which some 100 others analyse, clarify, structure and plead their case, it is also in a way, and for this very reason, a cultural provocation.

As we wend our way through the texts, we shall no doubt enjoy spotting common threads of thought, unsuspected influences and unknown or blurred allegiances, tracing lines of force and, in short, plotting all sorts of constellations in the 'paideia *galaxy', where no star is any longer isolated. Moreover, new avenues of research will open up, for example: the comparative analysis to be made of dozens of philosophical approaches to the relationship between education and society; the relationship between thought and action, educational thinking and educational policy; international cultural transfer or the ways in which ideas about education are conveyed from one culture to another.*

I consider this diversity extraordinarily enriching for, looking beyond the exigencies of alphabetical order – abrupt changes of tone, differences of approach and position, the strengths and weaknesses of creeds, temporal distance and large voids in space – the work becomes *the unique and privileged meeting place of men and women – admittedly only a very few of the latter – who share with the reader a common aim: an increasingly refined understanding of children, and a common goal: their development and socialization, as perceived by the thinkers and their interpreters.*

The invisible stars

The best of universal thought on education has, in my opinion, been gathered together in these pages. The best, perhaps, but certainly not all. *Like museums, encyclopedias are, as we know, always selective and sometimes unfair. Arbitrariness cannot be avoided: on display in galleries are the* chefs-d'œuvre, *the Old Masters, representative or significant works; in the cellars and the archives, on the back shelf, more* chefs-d'œuvre, *other, neglected masters, less well known or less understood. The present volume risks incurring the same reproach, though I am not unappreciative of the many who have had to be left out; this may be judged from the following list, arranged in alphabetical order.*

Western Antiquity: *Isocrates, Quintilian.*

Europe, from the Middle Ages to our own day: *Leon Battista Alberti, Benjamin Samuel Bloom, Pierre Bovet, Urie Bronfenbrenner, Jerome S. Bruner, Auguste Comte, Lionel Elvin, Marian Falski, Vittorino da Feltre, Bakule František, Richard Goodings, William Heard Kilpatrick, Hermann Lietz, Le Peletier de Saint-Fargeau, Anatole Vassilievitch Lunacharski, Karl Marx, Alva Myrdal, Percy Nunn, Wincenty Okón, Petö Andras, Wolfgang Ratke, Pedro Roselló, Eduard Spranger, Edward Lee Thorndike, Faria de Vasconcelos, Alfred North Whitehead.*

The Arab-Islamic world: *Matta 'Akrawi, Ibn Hazm, al-Jāhiz, al-Mawerdī, al-Qābissī, Ibn Sahnūn, Zarnouji.*

Latin America: *Alfredo D. Calcagno, Lorenço Filho, Valentīn Letelier, Ivān Gómez Millas, Eugenio María Hostos, Juan Mantovani, José Carlos Mariátegui, Victor Mercante, Roberto Moreira, Augustín Nieto Caballero, Pablo Pizzurno, Simón Rodríguez, Eugenio de Santa Cruz y Espejo, Franz Tamayo, Anixio Texeiro.*

Asia: *Malcolm Adiseshiah, Kunijoshi Obara, R. P. Singh, etc.*

There are certainly others, but that will do.

There is material there for over fifty 'profiles' in future ordinary issues of Prospects, *since the review was the seedbed from which the idea for the present collection first sprang. I will go further by suggesting that, a few years hence, it may well prove possible to publish a new edition, which not only takes into account the latest advances in research but also includes the thinkers I have just listed. Is it not in the nature of every project for an encyclopedia to provide for constant expansion and updating? However, even as it stands, our galaxy at least contains all the stars of first magnitude.*

Given the diverse origin of the texts and the wide range of languages in which they were written, the reader will readily understand that the task of translating and checking them posed considerable problems. To give just one example, the essayists were asked to illustrate their analyses with apt quotations from the thinker's works so as, inter alia, *to avoid unfounded assertions, strained analogies and pat judgements. The response, as will be seen, was overwhelming. All the contributors*[15] *wrote their essays in their mother tongue: Arabic, Chinese, English, French, German, Italian, Russian, Spanish, etc. UNESCO's translators and its Terminology, Documentation and Reference Service performed a remarkable feat, not only by faithfully reflecting the words of the author, as they are accustomed to doing, but also by carrying out exhaustive research to track down, wherever possible, corresponding quotations in English, French and Spanish: many of the works cited are available only in the thinker's original language, others, no less numerous, are now unobtainable.*

What readership?

In our 'planetary village', so it is said, what cannot be integrated will be internationalized. Education cannot escape this process. One of the functions of comparative education is to point the way for teachers, researchers and officials, to mark out paths and signpost crossroads in time and space. In the present collection, education looks to its past and its present in order to face its future better informed and perhaps with greater assurance.

Although no one can be forgiven for not knowing Plato, Comenius or Rousseau – especially a student of the history of ideas – it is equally inexcusable to know nothing of Ibn Khaldūn, Sadler, Vigotsky and the rest. This collection, which aims to be a source of information, a guide and a means of interpretation, should help *deflect such accusations. It is intended for universities, social science research institutes and teacher-training colleges, for those who lecture and carry out research on the history of ideas and of education, for those who, in this branch of knowledge, wish to clarify and provide an historical underpinning for their positions on education, its nature, goals and development, and, even more generally, for those interested in intercultural dialogue and those, ever more numerous, who are convinced that, in these uncertain times, educational thought should play a catalytic role which no other kind of thought can. In short, it is aimed at professionals and research workers, while sending out a challenge to constructive politicians.*

The moment has now arrived for me to acknowledge my numerous obligations.

The reader will have guessed that an undertaking of this scope would be impossible without the help of many others working behind the scenes. These are no other than the members, without title or seat, of that invisible but universal academy, UNESCO.

My thanks go first to the authors of the essays who, from all over the world, responded to my appeal; my thanks and my apologies for having harassed them with my reminders, requests for clarification, rewording and, I shudder to mention it, revisions and bibliographical corrections.

My warm and heartfelt thanks go to all those who, on five continents, have proposed the names of thinkers for inclusion and have helped to identify the specialist best equipped to write about them. They are, in alphabetical order: Daniel Hameline (University of Geneva), James Henry Higginson (formerly of London and Leeds Universities), Torsten Husén (University of Stockholm), Mrs Nadia Jamāl al-Dine ('Ayn al-Shams University, Cairo), Wolfgang Mitter (University of Frankfurt), Erwin Pollack (Kennedy-King College, Chicago), Michel Soetard (Catholic University of the West, Angers, France), Zhou Nan-zhao (China National Institute of Educational Research, Beijing).

Among my former and current colleagues, the following are also entitled to my gratitude: José Blat Gimeno (Spain), Miroslav Cipro (Czech Republic), Ángel Diego Márquez (Argentina), Nabil Nofal, Juan Carlos Tedesco and Abdelwahid Yousif.

All, whether authors, advisers or colleagues, welcomed the project, first with surprise, then with enthusiasm, and have given me constant encouragement and support. Now that the project has come to fruition, I divine and share their satisfaction.

I have more than thanks for my collaborator, Ms Hilary Platman. From the very beginning she embraced the project and took it to her heart. She has taken care of all the logistics, at every stage, scrupulously, efficiently and with devotion. I take this opportunity to convey to her my deep appreciation.

October 1993

Notes

1. Werner Jaeger, *Paideia: Die Formung des Griechischen Menschen,* 1st edition, Berlin/ Leipzig, 1933, 1944/45, 3 vols.; 1st English edition, *Paideia: The Ideals of Greek Culture,* London, Basil Blackwell, 1939, 3 vols.; 1st Spanish edition, *Paideia: Los ideales de la cultura griega,* Mexico City, Fondo de Cultura Económica, 1957, 1 vol.; 1st French edition, *Paideia. La formation de l'homme grec,* Vol. 1 (the only one to appear); *La Grèce archaïque: le génie d'Athènes,* Paris, Gallimard, 1965 ('Bibliothèque des Idées').
2. A warning disregarded by the *Diccionario de las ciencias de la educación* (Madrid, Publicaciones Diagonal/Santillana, 1983, 2 vols.) which gives a 'definition' of *'paideia'* which could be translated as follows: 'from the Greek *paideia,* the education of children. In the history of education: key concept of Hellenic culture which expressed the ideal of education in Greek thought [and] which consisted in the development and harmonious shaping of all the physical and mental potentialities of the individual', Vol. II, p. 1082. Admittedly, the respectable *Greek-English Lexicon* compiled by Henry George Liddell and Robert Scott (Oxford, Clarendon Press, 1953) also gives the following definitions of the term: '1. Rearing of child. 2. Training and teaching, education. 3. Its result, mental culture, learning, education.'
3. Jaeger, op. cit., Foreword, p. v.
4. Ibid., p. 418.
5. Ibid., pp. 416–17.
6. 'Preface: *Paideia* – the Shaping of the Greek Character', ibid., p. ix.
7. This is true of, *inter alia:* Henry J. Perkinson, *Since Socrates, Studies in the History of Western Educational Thought,* New York/London, Longman, 1980; R. S. Peters, *Essays on Educators,* London, George Allen & Unwin, 1981; Bernard Jolibert, *L'éducation contemporaine,* Paris, Klincksieck, 1989; Hassane Mohammad Hassane and Nadia Jamāl al-Dine, *Madāris al-Tarbiyya fi al-Hadhāra al-Islāmiya,* Cairo, Dar al-Fikr al-'Arābī, 1984.
8. This is true of the following: for the United States, Robert Ulich, *History of Educational Thought,* New York, American Book Company, 1950; for the United Kingdom, *The History of Western Education,* William Boyd and Edmund J. King (eds.), London, Adam & Charles Black, 1975 (11th ed.); and, for France, *Les grands pédagogues,* Jean Château (ed.), Paris, Presses Universitaires de France, 1956, and *L'éducation: approches philosophiques,* Pierre Kahn, André Ouzoulias and Patrick Thierry (eds.), Paris, Presses Universitaires de France, 1990.
9. An examination of the ten volumes of *The Encyclopedia of Education* (Lee C. Deighton (ed.), London, MacMillan/Free Press, 1971) revealed that only a few of the great names in Western thought are examined there. The *Diccionario de las ciencias de la educación,* op. cit., aims at a broader coverage and deals, in very brief articles, mainly with the European and Latin American thinkers. The *International Encyclopedia of Education* (Torsten Husén and T. Neville Postlethwaite (eds.), Oxford/New York, Pergamon Press, 1985, 10 vols.) never set out to deal with 'educational thinkers'. It devotes two long chapters to the history and the historiography of education, but the 'thinkers' of education are not specifically taken up and, again, their names appear only incidentally, in paragraphs scattered here and there among numerous articles or notes. As for the *Encyclopaedia Britannica* and the *Encyclopaedia Universalis,* though a number of prominent Western figures are examined directly from the standpoint of the 'educational sciences', the eminent non-Westerners are considered in terms of their dominant public image (philosopher, politician, theologian, etc.), and many are passed over in silence.

10. Miroslav Cipro, *Průvodce dějinami výchovy* [Guide to the History of Education], Prague, Panorama, 1984, and *Prameny výchovy* [Sources of Education], Prague, Princo, 1991–93; three volumes have already appeared, a fourth is to appear in 1994.
11. To form an idea, see UNESCO's catalogue of 'representative works' and the thirty-nine volumes of *Index Translationum: International Bibliography of Translations.* In the latter, two headings will be found particularly and directly informative: 'Philosophy, Psychology' and 'Law, Social Sciences, Education'.
12. This first volume will be followed by three others whose Contents are reproduced at the end of this volume.
13. It is intended to publish this collection in English, French and Spanish, which will meet the expectations of a considerable number of students and historians of education worldwide. It is to be hoped that, with or without UNESCO's support, an effort will be made to have it translated into and published in other languages as well.
14. This option does not, however, afford perfect flexibility and I have had to take a few liberties. Thus, as in the *Encyclopédie de l'Islam,* should Avicenna appear as *I*bn Sīnā, like *I*bn Khaldūn or *I*bn Miskawayh? Similarly, should I list Confucius under his real name K'ung Tzu? And why does not Alain, the first name on the list, appear as Chartier, Émile Auguste?
15. A list of contributors will be found at the end of this volume.

[illegible] 1. Meaning of child. 2. Training [illegible]

[illegible]

4. Ibid., p. 408.

5. Ibid., pp. 416–17.

6. 'Preface: Paideia – the Shaping of the Greek Character', [illegible]

7. This is true of, *inter alia*: Henry J. Perkinson, *Since Socrates: Studies in the History of Western Educational Thought*, New York/London, Longman, 1980; R. S. Peters, *Essays on Education*, London, George Allen & Unwin, 1982; Bernard Jolibert, *L'éducation contemporaine*, Paris, Klincksieck, 1987; [illegible] and Nadia Jamal al-Din, *Madkhal il-Tarikh* [illegible], Cairo, Dar al-Fikr al-'Arabi, 1994.

8. This is true of the following: for the United States, Robert Ulich, *History of Educational Thought*, New York, American Book Company, 1950; for the United Kingdom, *The History of Western Education*, William Boyd and Edmund J. King (eds.), London, Adam & Charles Black, 1975 (11th ed.); and, for France, *Les grands pédagogues*, Jean Château (ed.), Paris, Presses Universitaires de France, 1956, and *L'éducation: approches philosophiques*, Pierre Kahn, André Ouzoulias and Patrick Thierry (eds.), Paris, Presses Universitaires de France, 1990.

9. An examination of the ten volumes of *The Encyclopedia of Education* (Lee C. Deighton (ed.), London, Macmillan/Free Press, 1971) revealed that only a few of the great names in Western thought are [illegible]. The *Diccionario de las ciencias de la educación*, [illegible] articles, mainly with the European and Latin American [illegible]. *The International Encyclopedia of Education* (Torsten Husén and T. Neville Postlethwaite (eds.), Oxford/New York, Pergamon Press, 1985, [illegible]. It devotes two long [illegible] the history and the historiography of education [illegible] 'thinkers' of education [illegible] specifically taken up [illegible] incidentally, in [illegible] notes. As for the *Encyclopaedia Britannica* and the *Encyclopaedia Universalis*, though a number of prominent Western figures are [illegible] directly from the standpoint of the 'educational' [illegible]. When they are considered in terms of their dominant public [illegible] and [illegible] are passed over in silence.

ALAIN

(1868–1951)

Philippe Foray

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28.2.2001
vol I.

Alain, whose real name was Émile Chartier, was born in Normandy, France, on 3 March 1868. There is not much that can be said about his life; Alain himself did not think it would contribute to a better understanding of his philosophy. From 1893 to 1933, Alain taught philosophy in secondary schools. According to his pupils he was an outstanding teacher, combining his own highly personal philosophy with a thorough knowledge of the great works of Western philosophy, from Plato to Hegel. He fought in the First World War and was demobilized in 1917. After the war he went back to teaching, while at the same time working as a journalist, a sideline he had started about ten years earlier with his regular contributions to the newspaper *La Dépêche de Rouen.* Most of Alain's considerable output has come down to us in the form of journalistic comment, but many books have also been published separately, including the eighty-one chapters of *L'esprit et les passions* (1917), *Le système des beaux-arts* (1920), *Mars ou la guerre jugée* (1921), and commentaries on philosophical or literary works. Alain died at Le Vésinet on 2 June 1951.

It is worth noting that his interest in education was that of a philosopher, for he was not what is usually called an educationist: someone of whose work history retains mainly the practical aspects. His *Propos sur l'éducation,*[1] first published in 1932, is a philosophical work, and it is this philosophy that we intend to present in this essay.

Alain's work in its historical context

As his journalistic work might indicate, Alain's books are easier to understand when they are set in their historical context. His lifespan coincides almost exactly with that of the Third Republic, that period of French history which – apart from the Vichy interlude during the Second World War – saw the introduction of a lasting republican and democratic system. This period also saw the development of workers' movements and trade unions. Alain always expressed sympathy for such movements. Like them, he was determined to work for human emancipation. But, whereas the trade-

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union movements were calling for social and political emancipation, Alain believed that the only real freedom for human beings was freedom of the mind. That was why he never subscribed to socialism and also why he taught in working-class universities. It is also clear that, from an educational point of view, Alain lived at a turning-point in the history of school education in France. Whatever approach one may adopt, the contribution made to education by the Third Republic was enormous. Whereas the Church and the monarchist parties considered the goal of education as mainly religious, simply part of a father's moral duty towards his children (in other words, it could only be a private matter), the Third Republic introduced state schools, regarding education as a human right to which all citizens were entitled, and not as a favour granted on a private basis. The state had an inescapable duty to provide education. On an even more fundamental level, public schools had to be independent of religion because the republican state was secular by definition. This meant that the Third Republic's contribution to education mainly involved the creation of institutions. The laws of 16 June 1881 and 28 March 1882 established free, secular and compulsory primary education. Alain had a ringside view of the founding of state education and the debates that went with it, and it is against this background that we should try to set his philosophy of education.

Although his *Propos sur l'éducation* had more than one thing in common with the educational philosophy of the Third Republic, it would be wrong to see the book merely as a sort of official philosophy of republican education. Alain's philosophy is a very personal one, challenging established views. In this article, we intend to clarify the links between Alain's philosophy and the republic's educational doctrine. Generally speaking, this will show that, while the consequences of *Propos sur l'éducation* converge with those of this doctrine, different principles are involved.

The concept of necessity

All educational philosophies raise and resolve at least three questions: the goal of education; the nature of the person to be educated; and the means by which this goal should be achieved. Using *Propos sur l'éducation* as a base, we can formulate principles that give Alain's answers to these three questions: the principle of the freedom of the mind; the principle of the individuality of each human being; the principle of education as instruction. It should be noted that these answers only concern that part of education which is provided by schools.

There is one idea that stands above all these principles and encompasses them all: the idea of necessity. Alain wrote: 'The most important of these lessons by far is that we cannot outwit necessity. The person who learns the meaning of the word "must" has already learned a great deal'.[2] There is first of all an external necessity, that of the material and social environment. If educating oneself means learning about the world, then it also means learning about necessity. Admittedly, education for Alain also means learning about freedom, but the two are not mutually exclusive. There is no freedom that does not take account of external necessity and that does not, as Spinoza is thought to have said, 'understand necessity'. One consequence of the necessity of the world is the necessity of education: the necessity of its role, the necessity of its agents (family, school, working life) and of their sequence, the necessity of the means enabling each of them to perform its function. The theme of necessity will be evoked in connection with each of the three basic issues of educational philosophy.

The goal of education

As regards the goal of education, Alain is heir to the long-established tradition of Western rationalism, especially that of Condorcet, whom Alain says in his diary he has read attentively. Of course, Alain was aware that education has a role to play in social reproduction, which must include enabling every individual to find a professional niche in the society in which he or she lives. But Alain was also well aware that social inequality – and he was doubtful whether a really egalitarian society would ever be possible – meant that schools could only be inegalitarian if they were devoted solely to reproducing a given social order: 'The goal of education is to identify a limited number of outstanding individuals . . . for there are not enough senior positions in society for everyone.'[3] So when he discusses the goals of education, he emphasizes a completely different aspect – that of the individual freedom that education, and especially schools, should enable people to develop in themselves, whatever their position in society. This freedom is obviously an ideal to which we should all aspire, but at the same time Alain felt it was an ideal that could only be aspired to because it was not completely divorced from reality:

> Obviously, there is no man of whom I can say that he will never concern himself with anything but his own work. Even if he were a slave like Aesop, he would still think. But he won't be a slave. Not only will he think about things human and divine, in a kind of way, as everyone does, but he will have to decide between war and peace, justice and injustice, the noble and the contemptible – in short he will have to make decisions on all kinds of matters, and these decisions, even if erratic, will carry his full weight as an individual.[4]

In this specifically humanist sense, the inequality hitherto acknowledged in respect of professional ability and social status is no longer acceptable. The humanist goal of education, according to Alain, implies espousing whole-heartedly the principle of equality for all in education. This is conveyed most accurately in a disparate type of education which battles against the current of social inequalities:

> If children show no aptitude for mathematics, this means that we should be particularly persistent and ingenious in our way of teaching them the subject. . . . Obviously the simplest response is the summary judgement that we still hear too often: 'He's not very bright.' But we cannot leave it at that. We would be committing a cardinal sin towards the future adult. . . . The ones we should be helping are precisely those who are always getting stuck and getting everything wrong, those who are liable to give up hope and have no confidence in their own mental capacities.[5]

Putting a premium on efficiency and productivity increases social inequality; setting a humanist goal for education, on the other hand, reinstates the principle of equality that is flouted in practice. This is not just a change in formulation: the whole approach to teaching practice should be affected by it.

In making the development and cultivation of a free mind the goal of education, Alain was returning to a central tenet of the republican philosophy of education: that the state cannot be truly republican unless it is made up of free individuals. None the less, there is one fundamental difference between Alain's philosophy and republican philosophy: Alain does not regard the state as the sum of institutions which a people establish to take control of their destiny and organize collective decision-making. He never believed that political organization would contribute to the freedom of the individual. In fact, his political philosophy is not a philosophy of the state but a philosophy of power; in other words it concerns the sum total of the phenomena that govern relationships between individuals and are not controlled by reason. For Alain, power is inevitable once individuals live in society; he believes that a society cannot exist without rules and regulations, and therefore without power. But this power is not justified simply because the state is a good thing in itself. On the contrary, the state is only one of the forms through which political power is exercised. The state has no value in itself; it is only useful as an instrument for making it possible for people to live together. Power has only one goal: to perpetuate and extend itself, and any person who wields power tends inevitably to be corrupted by it. Similarly, the idea of specifically political freedom has no meaning for Alain: the only freedom possible is the freedom of the mind to make its own judgements, and that is at the same time the only political freedom. This leads us to Alain's view of civic education, which includes the question of the purpose of education in general. This view can be reduced to two concepts: physical obedience and intellectual resistance. 'I teach obedience', Alain wrote,[6] which is necessary because power is necessary. But obeying power does not necessarily mean respecting it; power does not need love, but constant reassessment. That is the citizen's job. If the subservience inspired by power comes largely from the aura of irrationality with which people invested it, then the process of ongoing demystification in which Alain urges citizens to engage may offer some hope of reducing power to what it should be: a consubstantial corollary of human societies. Alain's policy is basically one of refusal. Its aim is to enable authority to coexist with freedom, and the exercise of power by the state to coexist with citizens' rights to monitor and criticize. So when Alain says that the supreme goal of education is developing the freedom of the mind, he means something very different from what republican political philosophers meant when they put forward the same idea. Alain wanted to give citizens the power to judge the state, not force them to support it.

This same goal explains Alain's persistent refusal to take account of one of the complaints made about schools: their failure to satisfy the demands of the labour market. He pointed out that this complaint always came from those in power, and that was because it was not in their interest to be confronted with free individuals: 'They ask, with a rather superior air, what use is a mind if it does not manufacture, sell or invent weapons; and technology rises up against wisdom. . . . So there is no judge, nor anyone to judge the judge, but soon there will be furious insects with a wonderful talent for piercing holes in rocks and in one another.'[7] However, Alain is far from being against the idea of vocational education. He calls it the time of the workshop or apprenticeship, and sees it as a necessary stage in the progression towards adulthood: 'The person who has never been an apprentice is only a big child.'[8] But he obviously feels that the time children spend in the classroom should not be overshadowed by the time they spend in the workshop, where they only acquire specifically technical skills[9] and where the mind, whose development is the goal of education, is not engaged. What distinguishes the tasks performed by an accountant from those performed by a pupil is that the accountant performs them mechanically and the pupil performs them intelligently.[10] Obviously the accountant needs mechanical skills, but they are harmful for the pupil, who needs to develop mental abilities. The workshop aims for success; the classroom aims for the exercise of judgement; this is why in the workshop time is always counted, whereas the classroom is the place for 'thinking that takes its time'.[11] Or again, in the workshop mistakes are criticized as professional errors, whereas in the classroom they should be allowed so as to enable pupils to correct themselves. Moreover, it is in the classroom, and not in the workshop, where pupils acquire an ability extremely useful in the world of work: the ability to innovate. 'Children who earn their living are not acquiring useful experience', Alain wrote, 'because they are learning too soon to watch their step: they are learning to stop taking risks.'[12] The lesson to be drawn is the importance of keeping what might be called the different levels of education separate. The first stage for children is play within their families; their working life will come much later. School comes between these two stages. 'School is similar to work in that it has to be taken seriously, but, on the other hand, it is not subject to the strict rules of work; anyone who makes a mistake can start again.'[13] It is obviously understood that nowadays certain economic imperatives urge taking the demands of working life into account in school at an earlier stage. But for Alain this would be to betray the school's educational function; it would mean giving it a purely social role and sacrificing the cultivation of the mind, without which, he believes, no freedom is possible.

The nature of the beneficiary

The second question, concerning the pupils as recipients of education, brings us face to face with the principle of the individuality of each person. As we have seen, Alain makes development of the individual the goal of all social and political organization, and therefore of all education. Nothing was more alien to him than the sociological theories emerging at the time, particularly that of Durkheim, who regarded education as a sort of production process aimed at turning out individuals in accordance with a set of social norms. 'Anyone who observes individual personalities soon comes to the conclusion that each develops according to its own internal rules.'[14] Let us dwell a little on this point. First, to stress human individuality does not mean to stress inequality of ability but rather the variety of styles of living and understanding; all are capable of acquiring knowledge, but each person will have a different way of doing this, just as we all have different handwriting. Secondly, human individuality defies psychological expertise; for Alain it cannot be reduced to any more general categorization, and this is why teachers cannot take previously acquired scientific knowledge of human behaviour as a point of departure for their work: 'You say that one has to know children in order to teach them, but that is not true; I would say that one has to teach them in order to know them.'[15] Individuality is not an ideal to be achieved, it is an educational principle only because it is a fact of life. So if education is to respect this individuality, if it is not to set itself the goal of 'making one individual have the same feelings as another',[16] it is not because such an educational policy would be reprehensible, but because it is impossible: 'You cannot change a personality.'[17] Alain probably knew that many influences can be exerted through education, but he wanted to point out that these influences cannot be imposed on malleable material as the teacher sees fit. For him, the reverse is the case. Instead of thinking that social norms shape individuals on a single model, we should realize that it is the personality of each child that determines to what extent any given norm will affect them. 'The contradiction that you say you see between ideal human feelings and strictly individual personality exists inside, not outside, the human being, and that is where it is constantly being resolved. In every individual the nature shared by all human beings is developed using the individual's own resources.'[18] Each individual will therefore learn the same values or the same universal or simply general knowledge, but this universality will only be what each individual makes of it.

In Alain's philosophy, the theme of individuality coexists with a second theme which is equally basic: although each child in school is an individual, there is a natural state of childhood which is necessarily the same for all and which can be summed up in two points.

The first is that, unlike educationists who were influenced by the sensationalist view, Alain asserts that children's initial contacts are not with things, but with people, and that it is only through human intermediaries that they encounter things.[19] This point is crucial, because it means that the first thing children learn is language. Children's knowledge of the world around them is as extensive as their means of expression allow. This view can form the basis for a critique of all educational methods which assume that knowledge comes from contact with things. For Alain the reverse is true: it is not seeing the objects around us that teaches us about them; rather it is only when we have learned about them that we will finally be capable of seeing them.

The second point is that because children are first aware of their human environment their first experience is one of power. The fact that those around them are looking after them without their realizing it or knowing why this is happening inevitably gives rise to misapprehensions. Children's first experience is 'the experience of government, and they feel the power of passion before having any inkling of the existence of the rules of work: their first way of thinking is that of a king.'[20] Children's first experience is of power, and their second will be disillusionment, as soon as those around them stop responding to their requests. Children's first impression of their human environment is one of instability and arbitrariness, because they misunderstand adults' motivations. The world of things is initially perceived on the model of their experience of the world of adults. Hence children's spontaneous animism and anthropocentrism, and a basic precept for the educationist: if, 'all efforts at conceptualization, without exception, bear the dual stamp of the human order and preliminary abstraction', this means that, always, 'mistakes . . . have to come first.'[21] In this sense, education is only a form of development because each individual is unique and must educate him- or herself – no one else can be made responsible. It is still true that the specific task of education is to correct children's spontaneous interpretation of their physical and social environment. In the next section, we shall see how Alain defines the content of school work to meet this requirement.

Creativity and culture

Before we tackle this point, what conclusions can we draw from the preceding analysis concerning creativity and the status of culture? It is obvious that, for Alain, there is no question of the individual being subservient to cultural education. For one thing, the principle of individuality makes it clear enough that the idea of cultural conditioning by the school is based on the inappropriate view of education as a production process for the individual. If individuality always resists such conditioning, we should deduce from this that what people think at any given moment is what they personally have made of what they learned at school. Moreover, the natural state of childhood which we have just described enables us to understand how essential cultural education is. If children's level of perception of the world is basically dependent on their mastery of language, then their creativity depends on it also. So when the school is reproached for restricting children's creativity by imposing cultural norms, Alain regards this as a form of educational naïveté. Those who take the view that 'children's individuality must be safeguarded at all costs, that we must take care not to dictate thoughts to them, but let them muse over a blank page so that what they write will be spontaneous and will come from within themselves, not from the teacher', are taking the risk that 'what they write when left to themselves will be precisely the hackneyed commonplace, like the pupil who, when asked to describe an ancient tower, referred to "stones darkened by time" when one glance would have made it clear that the tower in question was noticeably lighter in tone than the buildings around it.'[22] Alain adds: 'This shows that we see the world through the distorting prism of the ideas we already have, in other words that our means of expression exert a tyrannical influence over our opinions.'[23] If human beings start their lives in a situation of dependence, crammed with received ideas, then originality of thought is a victory to be won, not a domain to be preserved. For Alain, what characterizes culture is the example it can offer of using language that has managed to rise above received ideas to achieve its own originality. Culture is not a set of impersonal norms, but a cluster of free thoughts. This is why he sees a close connection between culture and individuality. When he writes: 'there is only one way of learning to think clearly, and that is to carry some tried and tested thought a little further',[24] or 'a shared culture brings out the differences',[25] he implies that the more we know, the more we strengthen our individuality, and conversely that it is always those who know the least who share the same opinion. Learning about one's culture is therefore considered by Alain as the best training for creativity, because it should not teach us what we ought to think but help us to discover a model for freedom.

The means to an end

The third question, concerning the means by which the school should accomplish its educational mission, brings us to the idea of teaching, of the school as a place of enlightenment, but a specific place, one that should not be confused with life itself. The principle underlying the various movements for educational renewal in Europe in the twentieth century – education for life and through life – is foreign to Alain's philosophy, though he might have sympathized with some aspects of their criticism of schools. For example, Alain does not accept Freinet's distinction between abstract knowledge taught in school, which is cut off from life, and practical knowledge, which is rooted in life. His criticism of the school never led him to suggest reforms aimed at opening the school up further to life. The reason for this intransigence is obvious: the educational approach predicated on 'life' is invalidated by the naïveté of mistaking the idea for the thing itself. Indeed, this is inevitable because life – in the cultural rather than the biological sense – can never be more than an idea, and 'there is no idea equal to the true nature of things.'[26] Neither educationists nor anyone else have the privilege of defining 'life'. This is why, faced with the human impossibility of avoiding a 'point of view', Alain opts for the view that to him seems least subjective, the choice of knowledge, endorsed by history and society.

In his defence of teaching, Alain is probably closer to the philosophy of the republican school than to the educational renewal movements. But here too, he only agrees with the conclusions drawn by republican philosophers, because as far as principles are concerned Alain never believed that knowledge was a good thing in itself. He is much closer in this respect to pragmatism, which in many ways underlies the philosophy of the educational renewal movements, because he only regards knowledge as a means towards the end of understanding the world and taking action in it. He rejects the idea of learning through things, which because it is always incomplete is unparadoxically the most abstract form of learning possible: at best the acquisition of technical skills, never freedom of judgement. This is why he defends teaching. But it is worth repeating that this teaching is not an end but a means, the most effective means the human mind has of understanding the world from which it has been, because of its nature, turned away.

Several conclusions can be drawn from this statement of principle.

To assert that there is no idea equal to the true nature of things is to say that any knowledge can be more easily defined by its relationship to other knowledge than to the reality it represents. Knowledge is organized independently and follows its own logic, moving 'from idea to idea'.[27] This movement is the subject of education, much more than any unattainable meshing with a reality that is constantly moving further away. This is why the knowledge learned at school must be elementary. The element is the point of departure, both complete in itself and enabling pupils to continue the learning process. On the other hand, the most recent forms of knowledge do not educate pupils; this kind of knowledge can only educate those who are already highly educated, because it assumes that the elementary knowledge has already been acquired. There is 'knowledge and knowledge'.[28] For those who are beginning their education, only these basic elements constitute true knowledge. And while the knowledge they acquire later may be true knowledge for some, for pupils it can only be opinions and information, in other words purely factual knowledge whose principles they have not mastered. The school's mission is not to inform, but to educate.

To assert the autonomous organization of knowledge is to say that it is made up of separate disciplines, and that it is in this form that it should be taught in school. In one sense, Alain is returning here to the encyclopedic ideal of the Age of Enlightenment, an ideal that was taken over by republican education. At the same time, he sticks to his essential point, which, as we have seen, is that children attending school are in contact with two worlds: the world of people and the world of things. This is why, in Alain's view, there are theoretically only two basic disciplines: scientific knowledge, for the world of things, and literature, for the world of people.

We should first of all state the objective of scientific education, which is not to accumulate knowledge but to develop a person's ability to observe the world. Bearing in mind the spontaneous interpretation children make of the world on the basis of their natural condition, this means developing the basics of a scientific approach: learning to look at the world of things without superstition; purging perception of animism and anthropomorphism, which are naturally dominant in children; understanding that the material world is not governed by the whims of the gods but by 'necessity', in other words a specific mechanism devoid of mystery. It is not a question of 'teaching all nature . . . but of setting the mind according to the object and in accordance with a clearly perceived necessity.'[29] The natural sciences would obviously be appropriate for achieving this goal. However, the ordering of knowledge means that as the natural sciences are not comprehensible 'without mathematical preparation',[30] then apart from the fact that they provide the always useful rudiments of scientific education,[31] it is chiefly mathematics that enables us to achieve the objective allocated to scientific education. Mathematics has two advantages, the first of which is that it avoids the arbitrary human element: in drawing geometric figures or making arithmetical calculations certain requirements become apparent which, while conventional, are in no way arbitrary. Secondly, mathematics has the advantage of being completely intelligible to the child: 'In geometry and arithmetic, there are no misleading appearances and no mystery. When I add five to seven to make twelve, the process is clear for all to see; there is no hidden mechanism.'[32] In mathematics, elementary knowledge is also definite knowledge. A child who has learned to add up knows as much on that particular point as a professional mathematician; each has the same rational knowledge.

Even more basic than scientific education is the knowledge of humanity that we acquire through reading literary works. Here, too, we must start from the nature of childhood, which is such that a child's experience of the world is one of arbitrariness and instability. This is why 'the first priority is to give ourselves room to breathe and to place the people surrounding us back far enough to have a clear view of them'.[33] At the same time, we obviously cannot shut ourselves away. We must therefore find a way of living together that enables us both to pacify and to understand human beings. This is exactly what reading can help us to do. Children must read because books will stabilize their experience of the world. The words on the page never change. The characters in a fairy tale are clear-cut, either wholly good or wholly bad; they are never ambivalent like people in the real world. The characters are also kept at a distance in books. The reader's relationships with them are not based on power, which makes it possible to learn from them about the world and the rules that govern it.

Three further points should be clarified here. First, reading does not mean spelling out words. It is well known that Alain was against this method of reading because parroting does not allow the text to be kept at a distance. Like the real world, the book masters the child more than the child masters the book. Reading silently, with your eyes, on the other hand, means ordering your thoughts around a subject without being its slave. You can master the book and think for yourself while following the thoughts of the author. 'Knowing how to read', Alain wrote, is 'applauding your own thoughts in another person.'[34] It is worth pointing out that in defending 'reading with the eyes', Alain is not taking a stand on a particular method of learning to read, which did not interest him. What he is concerned with is the end, not the means.

The second clarification is this: to the question 'What should we read?', Alain's reply is unequivocal: 'I see no restrictions at all . . . I cannot imagine a person whose prime requirement is not being surrounded by humanity as it is found on the pages of great books.'[35] Here, the humanist goal of education finds a direct application, meaning that there is no difference between reading-matter for use in schools and reading-matter for the élite. Everybody should read, and they should read everything. Here Alain does not see himself as imposing the literary norms of a benchmark culture but as stating his conviction that the content of such books is both sufficiently distant from and sufficiently close to readers to offer them the possibility of liberation, through knowledge, from all the forms of servitude inherent in immersion in the world of people.

In defending teaching as instruction, Alain exposes himself to one of the objections traditionally made about schools: that they lack heart, in other words they overlook a fundamental aspect of education – the child's emotional development. He has two replies to this objection. First, he removes from the idea of affection its intrinsic naïveté. Education based on feelings can easily be presented as education based on love, but it can just as easily be education based on spite. 'Feelings soon become tyrannical', Alain wrote, and the teacher's feelings can make a sudden turn from positive to negative. All it takes is annoyance with some unruliness or some learning difficulty, which is bound to happen. Secondly, Alain cannot help suspecting that a desire to influence and condition the child may underlie these fine feelings. In other words, there is a way of loving children that actually denies their individuality. Conversely, there is a way of seeming not to love them that is actually a way of respecting and trusting them. We can easily see that behind these two objections lies the distinction made between legality and virtue in Kantian philosophy. For Alain, as for other rationalists, morality concerns only one's private life. Any attempt to organize a group structure such as a school on a model based on moral values runs the risk of degenerating into a reign of terror, or even what we now term totalitarianism. Education is not a matter of morals but a matter of law. The relationship between teachers and pupils cannot be governed by moral feelings; it must have its basis in a legal concept such as a contract rather than in emotional attachment. For Alain, teachers should indeed be heartless, not out of indifference to the children but, on the contrary, because they see the liberation of the child as the main task of education.

Pupil failure and educational method

If the disciplines taught in school are determined by the educational necessity of establishing the relationship between individuals and their environment (both physical and human) on a sound basis, then it is self-evident that this education must be obligatory for all. 'I find it ridiculous that the decision to learn one thing rather than another should be left to children and their families', Alain wrote. 'It is also ridiculous to accuse the state of trying to impose this or that subject. Nobody should choose and that way the choice is made.'[36] We can see that Alain's ideas tally in this respect with those of the republican educationists: schooling should be compulsory and should not be left to the discretion of the head of the family. The fact remains that this knowledge is not readily accessible, which raises the problem of learning difficulties and how they should be overcome, in other words the issue of pupil failure as well as that of educational methods. It is probably on these two issues that Alain's philosophy is most influenced by the educational circumstances of his time.

LEARNING DIFFICULTIES

Alain's first response to learning difficulties is to try to identify their causes. He was one of the first to denounce the explanation of learning difficulties in terms of differences in intelligence: 'I am sick and tired of hearing that this person is intelligent and that one is not.'[37] As far as simple intelligence is concerned, he believes there is no difficulty that cannot be overcome: 'What person, however mediocre in the eyes of others, cannot master geometry, tackling the difficulties in the right order and not being discouraged? To progress from geometry to the most advanced and arduous research is like progressing from day-dreaming to geometry. The difficulties are the same: for the impatient, insurmountable; for the patient, who will deal with them one at a time, non-existent.'[38] So when he discusses learning difficulties, Alain thinks in terms of 'patience' and 'impatience' rather than of intellectual ability. In other words, he shifts the emphasis of the problem from intelligence to character: for him, succeeding at school is a matter of willpower. The scope of this argument will be easier to understand if we relate it once again to the nature of childhood. Although we can distinguish between desire and willpower by saying that desire is the demand for instant gratification while willpower takes account of all the constraints and means that will enable it to achieve its goal, we must admit that it is desire that prevails in childhood rather than willpower. Children are naturally led to shun willpower by the illusion of power, to which they succumb. 'The idiot is like a donkey which shakes its ears and refuses to budge.'[39] It is this rejection of willpower, the will to have no willpower, a legacy of the natural condition of childhood, which in Alain's view explains learning difficulties that initially must be the same for everyone. This view also provides the solution, which is to strengthen willpower: 'The work that pupils are given to do tests their character rather than their intelligence. Whether in spelling, translation or arithmetic, the challenge is to overcome moods, to learn to stick at it.'[40] Although Alain writes that 'there is no better human value than willpower',[41] that value is only a means and not an end in itself. The only objective of the school is to cultivate the mind; one learns to persevere only in order to make this possible.

Alain's explanation of pupil failure in moral terms (lack of willpower) might be thought to limit its field of application, especially when one considers the subsequent development of the phenomenon. Alain looks at failure as an individual phenomenon, whose consequences only marginally affect the individual's later life.[42] But it could be said that the nature of the phenomenon changes radically when it becomes so widespread that it causes a public outcry and when statistical analysis shows that it is no longer an exclusively individual, but a social phenomenon. When the connection between the parents' socio-professional category and the child's success at school can be incontrovertibly demonstrated, failure can no longer be explained by factors that only concern the individual. What is needed is a comparative analysis of the specific demands of the school and the educational expectations of children from the socio-professional categories worst affected. Admittedly, Alain's *Propos sur l'éducation* would be only marginally useful in carrying out such an analysis, for although his refusal to accept inequality of intellectual ability is important, the crux of the problem still calls for another kind of analysis.

TEACHING METHODS

We shall be forced to reach a similar conclusion on the issue of teaching methods. First of all, Alain must be given credit for criticizing lecture-type lessons and supporting active educational methods. His criticism of the lecturing style of teaching can only be properly understood by reference, once again, to the nature of childhood. If children learn nothing from listening to a teacher talking, it is because this approach reinforces their subjection to speechifying and abstraction. The lecture is typical of that magic use of language from which the world of things is excluded, where anything is possible but nothing is real. In other words, it never provides children with anything that can fix their experience of the world as a written text can. It does not enable them to leave behind them the make-believe world of childhood.

Two conclusions can be drawn from this analysis. First, Alain advocates active learning: 'Hearing and seeing will not make progress possible for any pupil anywhere in the world, only doing.'[43] This view makes the primary school class a workshop for the mind:

> A place where the teacher works very little and the children work a lot. No lessons falling like rain which the children listen to with their arms folded; instead children reading, writing, calculating, drawing, reciting, copying and recopying. Many exercises are given on the blackboard but they are always repeated on the pupils' slates, slowly and frequently, and always taking up long periods of time. . . . Many hours are spent making clean copies in exercise books. . . . And the writing, recitation, reading, drawing and calculating continues; building knowledge.[44]

This view also defines the teacher's role, not as preparing and giving lessons but as organizing study and 'grading the tasks'.[45] In this respect, the teacher is no more than a transmitter of knowledge, an auxiliary to books, which brings us to the second conclusion to be drawn from Alain's analysis, the overriding importance of reading in school work:

> Let them learn to read and then to read some more. Let them be educated by poets, orators and storytellers. There would be plenty of time if we were not trying to do everything at once. The primary school offers the ridiculous spectacle of an adult giving lectures. I hate these little Sorbonnes. I could test them by ear, just by listening through an open window. If the teacher is not talking and the children are reading, then all is well.[46]

However, to say that Alain was in favour of active learning is not to tell the whole story. The term 'active learning' is in itself vague and requires clarification. It is vital here to note that, for Alain, schoolwork only contributes to freedom of the mind if it first lays great stress on discipline of the body. This assertion has the force of a statement of principle that goes far beyond education: generally speaking, it is only by taking the world as its point of departure that the mind can liberate itself. Freedom is never effective if it is too far removed from the world of things or of people. The mind is only real if it manages to give itself a body. This is why, at school, 'the body must first of all be favourably disposed.'[47] So 'copying is an act that encourages thought'[48] because it 'focuses the body on the thoughts you want to follow'.[49] Similarly, this is why learning language by reciting poetry fleshes out the child's wandering thoughts.[50] And this is also why Alain argues against school reformers, who, ignoring the need for bodily discipline, seek first to 'develop intelligence instead of awakening and disciplining emotions'.[51] Deep down, Alain, who in this respect observes republican teaching methods, relies on mechanical responses and repetition to help develop the mind. He does not believe that prior understanding is essential for learning, but he does think that the reverse is true: learning is a precondition for understanding. He defends an educational theory based on habit which is very different from plain routine and prepares the body to become 'fluid, in other words able to convey thought exactly'.[52] In fact, the body is only the antechamber to the mind.

In this context we could perhaps note a second limitation of *Propos sur* *l'éducation,* similar to the one we noted earlier. It concerns what has been called the 'question of support'.[53] Discussing the motivation of learning, Alain vehemently criticized education based on play or interest which purports to motivate the pupil with the promise of pleasure or interest, either immediate or imminent. This criticism is certainly relevant in so far as such methods are only aimed at the desire for gratification and do nothing to strengthen the determination to learn.[54] It is also unhelpful in that the pleasure the mind is capable of feeling is foreign to the spontaneous interests of the child.[55] In other words, there is an inevitable element of constraint in learning at school which cannot be completely eliminated by short-term motivation. A great deal of work is required to cultivate the mind, and this can only be achieved through consistent determination and willpower and never by the ephemeral impulses of desire. Unfortunately, the constraint inherent in learning school subjects is such that they can only be assimilated successfully if pupils accept requirements made by the school. In other words, the pupils must be prepared to trust their teachers to provide intellectual satisfaction that they will only obtain later. We may assume that there will be no argument about this so long as attendance at school is taken for granted by society, and therefore by pupils, and there is no need to question its existence, methods or content. What the family expects from the school coincides with what the school demands from its pupils and it is not difficult to reach a consensus on the objectives of schooling. But this consensus unravels when society as a whole, or just particular social categories, lose confidence in the school. The will to learn may then evaporate, and with it the school's implicit authorization to set pupils tasks whose value is not immediately apparent. Perhaps there has always been a deep-rooted misunderstanding between education and society, at least in France. Whereas society requires that the school meet a utilitarian demand, what the school is offering is basically general education. Society expects the school to fulfil a social function first and foremost, while the school's main concern is to cultivate the mind. This discrepancy goes unnoticed as long as the school satisfies these social expectations while following its own bent. This was indeed the situation at the time when Alain was writing about a type of education whose principles were unchallenged. In such a situation willpower could be postulated as the main condition for success. But when the school is explicitly allocated as its basic task the preparation of pupils for the world of work, a different situation obtains. The school's provision of general education is then perceived as not satisfying the utilitarian requirements of society. We can then point out, in connection with the postulation of willpower as the sole condition for a pupil's success at school, that willpower itself is dependent on this more fundamental agreement between the pupil and the school – agreement on the school's aims and methods. In modern industrial societies it seems quite likely that for a section of the school population this agreement has been undermined if not broken, and the school's requirements are basically open to question. So the school can no longer count from the start on the support of all its pupils, which used to mean that its working methods were accepted without conflict. We are not maintaining that schools should change, merely pointing out a problem that Alain could not have been expected to recognize and which probably cannot be solved on the basis of his advice alone.

Following this account of Alain's reflections on education we could draw two conclusions. First, his specifically educational philosophy is no doubt historically dated, as we have seen in respect of pupil failure and teaching methods. We feel that Alain's suggestions belong to their own time and have only marginal relevance for contemporary education, given the emergence of new phenomena such as the social dimension of school failure and the collapse of the implicit agreement binding the pupil to the school, which Alain was bound to discount. But while the methods he recommends may be outdated, we believe that his philosophy of education, that is, his commitment to the principles of education, is still relevant. At a time when increasing demands are being made on state education by society, especially in economic circles, his *Propos sur l'éducation* advocates a philosophy of critical vigilance that we would do well to heed. Alain reminds reformers, who are in too much of a hurry to turn the school into an industrial enterprise, that there is a sequence tó be followed in education and that we must take care not to destroy the school in our eagerness to open it up to the world of work, because without a cultivated mind there is no genuine humanity, and probably no truly effective vocational training either. Alain also reminds us that people in general, and therefore children too, are not raw material that can be shaped to comply with external norms. There is an invincible resilience in individual human beings, which means that education can in no way be compared to a technical process which produces individuals through external intervention; it is more of a practical process through which individuals develop themselves.

This said, it is obvious that this philosophy of education is in no way revolutionary. Alain explicitly denied any such intention, since he believed that any form of revolution was much more likely to strengthen external authority over the individual than to free the individual from it. In this sense, Alain can be said to be an educational realist, meaning that he distrusts any educational plans that involve too much interference. For him, the main concern of education was not to invent a new type of person or a new world but to come to terms with reality. This does not mean that Alain was a conservative, only that he did not rely on teachers to change human beings but on human beings themselves.

Notes

1. Alain, *Propos sur l'éducation,* Paris, Presses Universitaires de France, 1986 (Quadrige series). This book also contains the lessons of *Pédagogie enfantine* (Paris, Presses Universitaires de France, 1963). In these notes *Propos sur l'éducation* is cited with the chapter in Roman numerals followed by the page number.
2. Ibid., X, 20.
3. Ibid., XXXVII, 95.
4. Ibid., XX, 54.
5. Ibid., XX, 53.
6. Ibid., LXXXIII, 208.
7. Alain, *Politique,* p. 270, Paris, Presses Universitaires de France, 1951.
8. Alain, *Propos . . .,* op. cit., XXIX, 77.

9. Ibid., XXVI, 68.
10. Ibid., XXIX, 68.
11. Ibid., XXVI, 69.
12. Ibid., XXIX, 76.
13. Ibid., XXIX, 77.
14. Ibid., Foreword, p. 1.
15. Ibid., XVI, 45.
16. Ibid.
17. Ibid.
18. Ibid.
19. Ibid., XXXI, 81.
20. Ibid., XXXI, 81–2.
21. Ibid., XXXI, 82.
22. Ibid., LIV, 137.
23. Ibid.
24. Ibid., LIV, 136.
25. Ibid., XXII, 59.
26. Ibid., XXX, 78.
27. Ibid., XVIII, 48–9.
28. Ibid., XVIII, 47.
29. Ibid., XIX, 50.
30. Ibid., XXV, 67.
31. Alain, *Pédagogie enfantine,* op. cit., 9, 261.
32. Alain, *Propos . . .,* op. cit., LXII, 157.
33. Ibid., XXV, 66.
34. Ibid., LXXIX, 200.
35. Ibid., XXV, 66–7.
36. Ibid., XIX, 49–50.
37. Ibid., XXIV, 62.
38. Ibid.
39. Ibid., XXIV, 64.
40. Ibid., XXIV, 65.
41. Ibid., II, 8.
42. Ibid., XX, 52.
43. Ibid., VI, 20.
44. Ibid., XXXIII, 86–7.
45. Ibid., II, 9.
46. Ibid., XXV, 67.
47. Ibid., XXII, 58.
48. Ibid., XXXIII, 87.
49. Ibid., XXXIV, 89.
50. Ibid., XIX, 51.
51. Alain, *Pédagogie enfantine,* op. cit., 31, 347.
52. Ibid., 18, 301–2.
53 J. S. Bruner, *Le développement de l'enfant: savoir faire, savoir dire,* p. 78, Paris, Presses Universitaires de France, 1983.
54. Alain, *Propos . . .,* op. cit., II, 10.
55. Ibid., IV, 14.

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ARISTOTLE

(384–322 B.C.)

Charles Hummel

We are familiar with Aristotle the researcher, the founder of sciences, the logician and the philosopher, 'the master of those who know'. But we know little of Aristotle the educator. Historians have not been greatly interested in what he has to say about education. The opinion expressed by H. I. Marrou in his *Histoire de l'éducation dans l'Antiquité* [History of Education in Antiquity] is indicative: 'Aristotle's work on education does not seem to me to be as original and creative as that of Plato or Isocrates.'

Yet Aristotle devoted as much time to teaching as to research. He is the prototype of the 'professor'. His teachings and lectures are the part of his work that has been handed down to us over 2,300 years. A pedagogical concern and an educational dimension are present throughout his writings. It is high time a study was made of Aristotle's approach to education as revealed in his lectures. This would highlight his characteristic manner of posing a problem and then discussing it by approaching it from different angles – probing it. We can discern here the didactic method of the Socratic and Platonic dialogues. Unfortunately the dialogues that Aristotle wrote to popularize the fruits of his research have all been lost. Such a study would also point out the way in which he illustrated his lectures with examples, quotations, references and images. On several occasions he declared: 'It is impossible to think without images.'[1]

Aristotle was an academic throughout his career. At the age of 18 he entered one of the most renowned centres of learning of his day, Plato's Academy, where he became noted for the passion with which he devoted himself to his studies, particularly to reading, a trait which won him the nickname of 'Reader'. He then built up the first great library which served as a model for the libraries of Alexandria and Pergamon.[2] He became a *privatdocent* in rhetoric and a rebellious one too, openly and passionately criticizing the doctrines of Plato, his master and forerunner, who reportedly said of him: 'Aristotle has kicked me just as a colt kicks its mother.'[3] After Plato's death, Aristotle left Athens for Assos in Syria and three years later settled at Mytilini on the island of Lesbos. There he engaged in many types of research, particularly in biology. It is not known for certain whether he established schools or study circles at that period of his life but it is quite probable. In 342 B.C., at the age of 41, he was invited by Philip of Macedon to his court to become the tutor of the young Alexander.

Unfortunately, we know practically nothing about the relations between Aristotle the educator and his pupil Alexander. Yet what an extraordinary event it was! Jacob Burckhardt considered that it was through Alexander's education that Aristotle exerted his greatest influence on history.[4] A modern writer, Peter Bamm, has described the encounter in the following words:

> Aristotle, that man who with his thoughts constructed a dwelling so vast that it accommodated Western science for 2,000 years, helped, through the ideas he inculcated in Alexander, to create the conditions necessary in order that the West itself might come into being. If it had not been for Alexander we should hardly know the name Aristotle. Without Aristotle, Alexander would never have become the Alexander we admire.[5]

Again, we know practically nothing for certain about the education that Alexander received from Aristotle. It seems likely that Aristotle prepared for his pupil an annotated version of the *Iliad*, which was to accompany the conqueror to the limits of the known world. Aristotle may conceivably have written for Alexander one book on monarchy and another on the colonies. None of these works has survived to our times and, surprisingly, there is no mention of Alexander in any of the works that have been preserved except, perhaps, for several very vague allusions when Aristotle speaks of the king who is a perfect man. It is quite likely that Aristotle introduced the young Alexander to the natural sciences. And it could well have been Aristotle who aroused in Alexander that sense of curiosity, that passion for discovery and new experience which took him as far as India and would most probably have led him to explore Africa had he not died prematurely. Was it the education he received from Aristotle that made Alexander as much an explorer as he was a conqueror?

In 334 Aristotle returned to Athens and established his own school, the Lyceum.[6] This was a type of university where research was pursued as an extension of higher education. Courses for the enrolled students were held in the morning, while the school was probably open in the afternoon to a wider public and thus performed the function of an open university. It seems that Aristotle entrusted the running of the Lyceum to the various members of the teaching staff in turn, each assuming this responsibility for ten days at a time.[7] Can this be said to foreshadow the democratization of education?

Scientific research, philosophical reflection and educational activity were intimately linked in Aristotle's life and work. It is therefore not surprising that Aristotle, whose passion for methodical analysis extended to whatever attracted his inquiring mind, also tackled the problems posed by education. He refers to the subject in practically all his writings. Unfortunately, the works in which he systematically developed his ideas on education have survived in only fragmentary form. Of his book *On Education* there remains only the merest fragment. The exposition of his education system to be found in the *Politics* terminates abruptly: a good half of it must have been lost. Using these few pieces of mosaic we shall try to sketch an outline of Aristotle's *paideia*.

The goal or purpose of education

For Aristotle the goal of education is identical with the goal of man. Obviously all forms of education are explicitly or implicitly directed towards a human ideal. But Aristotle considers that education is essential for the complete self-realization of man. The supreme good to which we all aspire is happiness. But for Aristotle the happy man is neither a noble savage, nor man in his natural state, but the educated man. The happy man, the good man, is a virtuous man, but virtue is acquired precisely through education. Ethics and education merge one into the other. Aristotle's ethical works are teaching manuals on the art of living.

In the first book of the *Nichomachean Ethics*, Aristotle asks 'whether happiness is to be acquired by learning or by habituation or some other sort of training, or comes in virtue of some divine providence or again by chance'.[8] The reply is clear: 'virtuous activities . . . are what constitute happiness'.[9] There are two categories of virtue: intellectual and moral.[10] 'Intellectual virtue in the main owes both its birth and its growth to teaching (for which reason it requires experience and time) while moral virtue comes about as a result of habit. . . . None of the moral virtues arises in us by nature.'[11] We shall return to the distinction made here between 'teaching' and 'the result of habit' when we come to discuss Aristotle's pedagogy. He concludes: 'It makes no small difference, then, whether we form habits of one kind or of another from our very youth; it makes a very great difference, or rather *all* the difference.'[12] The point could not be more tersely made.

Towards the end of the *Nichomachean Ethics*, Aristotle returns to the question in almost identical terms: 'The man who is to be good must be well trained and habituated.'[13]

In Book VII of the *Politics*, where Aristotle discusses the ideal state and, in particular, education in that state, he returns to the question, 'How does a man become virtuous?' The reply is similar to the one given in the *Nichomachean Ethics*. Three things make men good and virtuous: nature, habit and rationality. Everyone must be born a man as distinct from a brute beast; and he must have certain qualities both of body and soul. But there are some qualities with which it is useless to be born, because habit alters them: nature implants them in a form that is susceptible of change, under the impulse of habit, towards good or bad. Brute beasts live mostly under the guidance of nature, though some are also to a small extent influenced by habit. Man alone lives by reason, for he alone possesses rationality. In his case, therefore, nature, habit and the rational principle must be brought into harmony with one another; for man is often led by reason to act contrary to habit and nature, if reason persuades him that he ought to do so. We have already determined what natures will be most pliable in the legislator's hand. All else is the work of education; some things are learned by habit and others by instruction.[14]

Hence certain attributes are necessary in order to achieve happiness, the full development of the human being. One must be fortunate enough to possess from birth certain natural gifts, both physical and moral (a healthy and beautiful body, a certain facility, intelligence and a natural disposition towards virtue). But these are insufficient. It is only through education that potential happiness can become truly accessible. Education is the touchstone of Aristotelian ethics. The virtues, wisdom and happiness are acquired through education. The art of living is something to be learned.

Aristotle's ethics are based on such concepts as happiness, the mean, leisure and wisdom, which we also encounter in his theory of education.

Clearly in Aristotle's view all forms of education should aim at the mean.[15] The eighth and final book of *Politics* (following the traditional order of the text) ends abruptly with a reference to this principle. 'Clearly, then, there are three standards to which musical education should conform. They are the mean, the possible, and the proper.'[16] The concept of the mean does not only apply to the ends of education, it is also an instrumentality, a pedagogical imperative to which we shall return later.

The goal of human action is leisure;[17] moreover, 'happiness is thought to depend on leisure'.[18] And one of the essential goals of education that should always be borne in mind is precisely leisure[19] or *scholē* (the etymological root of the word 'school'). In the Aristotelian philosophy of education a central position is occupied by education for leisure. This is an essential part of the training for the 'business of being a man'. Tricot rightly emphasizes that leisure is not to be confused with idling,[20] with a kind of *dolce far niente*. It is the faculty of being able and knowing how to use one's time freely. Freedom is one of the ultimate goals of education, for happiness is impossible without freedom. Such freedom is achieved through contemplation or the philosophical life, that is to say, in the activity of the mind relieved of all material constraints. This is why it is particularly important that education should not have the character of vocational training. For 'the meaner sort of artisan is a slave, not for all purposes but for a definite servile task'.[21] Furthermore, 'the good man, therefore, the statesman, and the good citizen certainly should not learn the crafts of their inferiors, except occasionally and for their own advantage'.[22] The same remarks also apply to tradesmen. Aristotle illustrates this point of view in his extremely detailed account of musical education in Book VIII of *Politics*. He says, for example, that 'neither the flute nor any other instrument requiring abnormal skill . . . should be made part of the curriculum'.[23] And he ends with the categorical statement that

> accordingly, we reject the professional instruments; and we reject also the professional mode of education (by 'professional' I mean such as is employed in musical contests) in which the performer practises his art not for the sake of improving himself, but in order to provide his audience with entertainment – and vulgar entertainment at that. For this reason we consider that the performance of such music is beneath the dignity of a freeman; it belongs rather to hired instrumentalists, who are degraded thereby.[24]

Leisure, or *scholē*, which should be the goal of education, is the freedom to apply oneself to essential matters. It is this form of freedom that leads to wisdom: a life devoted to philosophy and contemplation, that is true happiness. Through leisure, which is an indication of freedom, education should lead to man's ultimate goal, an intellectual life rooted in the mind. That is the true 'business of man' which it is the function of education to teach. And man can only learn it through education.

But man is essentially a political animal, according to Aristotle's celebrated definition. 'A man who cannot live in society, or who has no need to do so because he is self-sufficient, either a beast or a god; he is no part of a state.'[25] Man can only achieve fulfilment in the community of the *polis*. Only there can he find happiness. (It should always be borne in mind that in his treatment of politics Aristotle is thinking exclusively of the *polis*, the city-state with precisely defined limits.)

If our thesis is correct and all Aristotle's practical philosophy rests on his theory of education, then we should find a genuinely political dimension as well as an ethical dimension in his concept of the goal of education. This is indeed the case.

Just as education leads the individual to virtue, which is the essential source of happiness, so also it creates the conditions necessary for the establishment and stability of the virtuous *polis*, that is to say, the *polis* that ensures the happiness of its citizens. It is through education that a community is formed. 'The state . . . is a plurality; it should be formed into a social unit by means of education.'[26]

At the beginning of his *Politics*, Aristotle declares that 'the state is a creation of nature'.[27] But when he describes the ideal state, he emphasizes that 'a good state, however, is not the work of fortune, but of knowledge and purpose'.[28] And this is the sentence with which he introduces his discussion of education in Books VII and VIII of *Politics*. But education does not only create society, the community which constitutes the city, it also guarantees its stability:

> The most powerful factor of all those I have mentioned as contributing to the stability of constitutions, but one which is nowadays universally neglected, is the education of citizens in the spirit of the constitution under which they live. You may have an unsurpassed legal system, ratified by the whole civic body; but it is of no avail unless the citizens have been trained by force of habit and teaching in the spirit of the constitution.[29]

Thus education has a conservative role. Today's advocates of social progress tend to criticize education for resisting change. But in Aristotle's view change is not desirable in itself as any change may lead to 'corruption'. What he seeks is an achievable and stable ideal. For each society and each form of government there exists a particular system of education. There is a system of education that corresponds to democracy, another that is appropriate for an oligarchy.[30] It is for that reason that education is the primordial task of the legislator:

> No one can doubt that it is the legislator's very special duty to regulate the education of youth, otherwise the constitution of the state will suffer harm. The citizen should be trained in accordance with the particular form of government under which he is to live; for each type of constitution has a distinctive character which originally formed it and makes possible its continued existence . . . again some preliminary training and habituation are required for the exercise of any faculty or art; and the same, therefore, obviously applies to the practice of virtue.[31]

There is one final feature that I wish to include in this sketch of the Aristotelian concept of the goal of education. If leisure is to be the goal of education for the individual, education at state level must be an education for peace. Just as leisure is the goal of occupation, so peace is the goal of war.[32]

> Again, life as a whole is capable of divisions: activity and leisure, war and peace. . . . War must be looked upon simply as a means to peace, action as a means to leisure, acts merely necessary or useful as a means to those which are good in themselves. The statesman should bear all this in mind when he drafts his laws. . . . It is with these ends in view that children, and indeed adolescents at every stage of education, should be trained.[33]

The education system

In view of the essential role which education is required to play in the development of the individual and of society, Aristotle devotes a great deal of space to the development of an education system in his description of the ideal city. Unfortunately, only a fragment of this description has survived. A good many questions therefore remain unanswered.

Aristotle believed that, contrary to the common practice of his day, education was a responsibility of the state. What he works out is therefore a genuine education policy.

Like Plato, Aristotle devises a veritable system of continuing education. Education is not limited to youth; it is a comprehensive process concerning the whole human person and lasting a lifetime. This process is organized in periods of seven years, just as in Plato's system. The first period is that of pre-school education. This is the responsibility of parents and more particularly of the father, who is 'responsible for the existence of his children, which is thought the greatest good, and for their nurture and upbringing'.[34] Upbringing begins well before birth: 'the legislator must decide how best to mould the infant body to his will'.[35] With this end in view, Aristotle indicates the best age for father and mother and even the best period for conception, namely winter. During pregnancy 'pregnant women also must take care of their bodies',[36] they should 'take exercise and eat nourishing food [and] keep their minds as tranquil as possible'. The new-born should have 'food with the highest milk content' and 'the less wine the better'. Children must exercise their bodies and become accustomed to the cold from their earliest years. Up to the age of 5 they should be trained through games, 'but they must not be vulgar or exhausting or effeminate'.[37] All indecent language and improper pictures should be banished completely as children must be protected from all shameful sensations so that all morally blameworthy phenomena are foreign to the spirit of young people. 'Between the ages of 5 and 7 they must be spectators of the lessons they will afterwards learn.'[38]

At the age of 7, the children enter school. Divided into three cycles, schooling continues up to the age of 21. As only fragments of Aristotle's work have reached us we cannot know in detail the features and structure of these three cycles of study. Nor do we possess any specific knowledge about adult education. However, the texts tell us explicitly that education is not completed at the age of 21:

> But it is surely not enough that when they are young they should get the right nurture and attention: since they must, even when they are grown up, practise and be habituated to them, we shall need laws for this as well, and generally speaking to cover the whole of life.[39]

Aristotle's education system is thus clearly a system of continuing education. We should also note that in Aristotle's view 'the body reaches maturity between the ages of 30 and 35; the soul by the age of 49'.[40] It seems probable that these thresholds also marked stages in the comprehensive system of education devised by Aristotle.

When considering Aristotle's system of continuing education one must not forget that his ideal city – like the Greek *polis* in general – is an educational city. Its citizens are required to perform different functions in the course of their lives; they must obey, order and judge. They participate in the service of the gods which is linked to initiation rites. They attend performances of tragedies. These go to make up a set of elements that contribute to continuing education. As we have seen, education was for Aristotle the affair of the state. Schools should be public. Here Aristotle, like Plato, was far ahead of his time. For the education of children in the Greek *polis* was a matter for the family. With the exception of physical education and military instruction, all forms of tuition were private. The introduction of public education always indicates a certain democratization of education. 'Education must be one and the same for all.'[41] But up to what age? Twenty-one? The texts do not tell us. But at no point does Aristotle mention selection, though he repeatedly emphasizes that moral and intellectual gifts are unevenly distributed. It is remarkable that Aristotle seems not to have prescribed any form of selection or competition in his system of education in a Greece which set a high value on all forms of competition.

Nevertheless, this democratic form of education has its limits in that it is reserved for the children of citizens. Although Aristotle does not say so explicitly, this seems obvious if we take into account the whole of the *Ethics* and *Politics*. There is no access for the children of agriculturalists, artisans or retail traders. As for slaves, they are not considered as complete human beings in any case. But it seems probable that Aristotle prescribed some sort of vocational training for tradesmen as he quite frequently refers to the importance of a good apprenticeship for the proper practice of a trade. And in certain conditions he even prescribes a form of education for slaves: 'Since we observe that education shapes the character of young persons, it is also essential, when one has acquired slaves, to provide education for those who are destined for liberal occupations.'[42] The question of education for girls remains an open one. In Aristotle's view, women are certainly not the equals of men. By their very nature they are destined to obey and are therefore not free. Their bodily and moral virtues are not the same as those of men. However, 'individuals and the community should similarly endeavour to develop each of these [physical and moral] qualities in boys and girls'.[43] It thus seems that Aristotle also envisaged public education for girls. Such education would be directed towards 'beauty and greatness, chastity and a liking for work without greed'.[44]

> We conclude, therefore, that education must be regulated by law, and that it must be controlled by the state. We must now deal with the nature and methods of public education. At present there is some difference of opinion about the subjects to be taught . . . neither is it clear whether education should be more concerned with intellectual or with moral character![45]

Aristotle thus poses the question of the content of education. Once again his answer has reached us only in fragments. And it appears that the parts that have been lost are precisely those that are the most original. In principle, young people should be instructed in 'such useful acquirements as are *really necessary*. Occupations are divided into liberal and illiberal.'[46] By 'useful acquirements' Aristotle means such subjects as grammar, arithmetic, drawing and physical training, but certainly not manual work or anything that could lead to paid work, which is described as menial. Furthermore, young people must be taught to fill their leisure time nobly. Hence,

> there are branches of learning and education which must be studied simply with a view to leisure spent in cultivating the mind. It is likewise clear that these studies are to be valued for their own sake, while those pursued for the sake of an occupation must be looked upon as no more than necessary means to other ends.[47]

Aristotle recognizes at least four subjects for instruction: grammar, physical training, music and drawing. In *Politics* he elaborates his ideas on physical training and above all on music. He discusses drawing briefly but the section that should be devoted to grammar is completely absent. Yet this section must have been particularly interesting in view of the role played by language in Aristotle's thought. We may suppose that grammar included the history of literature in addition to reading and writing (bearing in mind that Aristotle prepared a commentary on the *Iliad* for the young Alexander and that his texts abound in literary references). Did his grammar also contain the fundamentals of logic and mathematics? And what about the teaching of the natural sciences and philosophy? We have no clear answers to any of these questions. All we know for certain is that he was concerned with the teaching of the sciences, since he mentioned it on several occasions. We shall come back to this point.

Aristotle is faithful to his principle of the mean in what he says about physical training. This does not involve over-rigorous training or a brutal upbringing. Neither is it a matter of paramilitary instruction. For Aristotle physical training is not simply a matter for the body: it must help to form character, that is, courage and a sense of honour.

Clearly inspired by Plato, Aristotle deals at length with musical education. Even more than physical training, music is a means of influencing moral character. For this reason it is essential. Obviously one must be sure to concentrate on good music, for certain musical modes, rhythms and melodies are harmful to character. Like Plato, Aristotle analyses the Greek tonalities in this connection and expresses a preference for the Dorian mode, 'that is the most solemn and sturdiest of modes'.[48] It also stands midway between the other modes. Musical education is also important as pupils learn thereby to judge the beautiful. And it has a general educational value since it teaches them to listen. But music is the means *par excellence* of education for leisure. 'Cultivation of the mind is universally acknowledged to contain an element not only of nobility, but also of pleasure, because felicity is compounded of both. Now all men agree that music . . . is one of the greatest pleasures.'[49]

Teachers are an essential part of any education system but one about which the Aristotelian texts have nothing to say. It is particularly curious that when Aristotle lists the various public functions of the ideal state he makes no reference to the teacher. Likewise, when describing the general plan of the city, he has nothing to say about the location of the school.

Pedagogy

Politics ends abruptly with a remark on education: 'Clearly, then, there are three standards to which [musical] education should conform. They are the mean, the possible, and the proper. . . .' Like all his practical philosophy, Aristotle's theory of education is grounded in good sense. Extremes and excess are above all to be avoided. The purpose of physical training should not be to produce champions at all costs. And musical education should be more concerned with the pleasure of listening to music than with virtuosity. The next point is that pupils should not be asked to do more than their ability permits. Thus, young men should not be given lessons on political science as they have no experience in practical matters.[50] In general, it is necessary to take account of the intellectual level of pupils as 'argument [is] not powerful with all men'.[51] Lastly, education should be limited to what is appropriate for the pupil, taking account of his age, character, and so on.

In accordance with man's nature, which is composed of the body, the soul and reason, education should proceed in stages. 'Care of the soul should be preceded by that of the body, which must be followed immediately by training of the appetites. This training, however, should be directed to the benefit of the mind, and care of the body to that of the soul.'[52] Reason and intellect only begin to develop in the child from a certain age. Education should therefore begin with physical training, continue with music and conclude with philosophy.

Aristotle identifies two complementary educational categories: education through reason and education through habit. For Aristotle 'education through habit' does not mean a sort of training involving automatic repetition. What he means by this expression is what we today would call 'active learning'. Moreover, in the *Nichomachean Ethics* he emphasizes that 'for the things we have to learn before we can do them, we learn by doing them, e.g. men become builders by building and lyre-players by playing the lyre'.[53] This is also true of moral education: 'We become just by doing just acts, temperate by doing temperate acts, brave by doing brave acts.'[54] It is through habit or active learning that natural dispositions develop. But education through habit is not limited to the learning of arts and techniques, and to the development of moral attitudes, but also concerns scientific education. 'It is through the practice of science that the possessor of science becomes learned in actuality.'[55]

For Aristotle, then, education is not something to which the pupil must passively submit. On the contrary, it is action that counts. Here too the theory of education faithfully reflects the main lines of Aristotelian philosophy as a whole. And this action is a source of pleasure for the pupil. Aristotle is clearly enough of a realist to see that young people are to be governed not only by pleasure but also by pain.[56] There can be no doubt that Aristotle was a rather authoritarian educator!

Education through habit is connected with three notions which should be mentioned: imitation, experience and memory. Man likes to imitate; all the arts are based on an imitation of nature. But imitation is also an essential source of lessons and education. 'Imitation is a distinctive feature of man from his childhood: imitation separates him from the animals and it is through imitation that he acquires his earliest knowledge.'[57] But a good example is needed if imitation is to serve the cause of moral education: 'Without a good example there can be no good imitation and that is true in all areas.'[58] Some virtues and types of knowledge can only be acquired through experience. This applies to prudence, for example, but also to physics:

> While young men become geometricians and mathematicians and wise in matters like these, it is thought that a young man of practical wisdom cannot be found. The cause is that such wisdom is concerned not only with universals but with particulars, which become familiar from experience, but a young man has no experience. . . . one might ask this question too, why a boy may become a mathematician, but not a philosopher or a physicist. Is it because the objects of mathematics exist by abstraction, while the first principles of these other subjects come from experience, and because young men have no conviction about the latter, but merely use the proper language, while the essence of mathematical objects is plain enough to them?[59]

The effect of habit is based on the phenomenon of memory to which Aristotle devotes a text included in the *Parva Naturalia*.[60] He underscores the imaginative nature of memory and the importance of repeated acts of recollection.

Education through reason complements education through habit. It is education in the proper sense of the term including, specifically, the teaching of the sciences. Its aim is to impart an understanding of causes: 'To teach is to indicate the causes of all things.'[61] Education through reason is concerned with the universal, which surpasses experience. 'Men of experience know that a thing is, but they do not know why it is, whereas men of learning know the reason and the cause.'[62]

Language is the essential instrument of education: 'Language is the cause of the education which we receive.'[63] For that reason, hearing has an important role. 'The faculty of learning belongs to the person who possesses the sense of hearing as well as memory.'[64] One recalls the role which Aristotle attributes to music in education. He draws a curious conclusion from the link between hearing and education, observing that it is for that reason that 'blind people are more intelligent than the deaf and dumb'.[65] The place of the problem of language in Aristotle's philosophical thinking is well known. To a large extent his philosophy amounts simply to an analysis of the functions of language.

Education through reason is characterized by two methods: *epagoge*, or learning by induction, and learning by demonstration: 'Indeed, we learn only through induction or by demonstration. . . . Demonstration proceeds on the basis of universal principles and induction on the basis of particular cases.'[66] *Epagoge* is the path that leads from experience to knowledge. Examples are particular experiences. Aristotle's 'epagogic' pedagogy is a form of teaching that proceeds from examples to an understanding of causes, as in science, which is always a knowledge of the universal. For Aristotle 'all teaching given or received by means of reasoning derives from pre-existing knowledge'.[67] But this pre-existing knowledge is quite different from that discussed by Socrates. It is not the result of a prior vision of ideas. It is the perception of a concrete fact or knowledge of the term that signifies that fact: 'The foreknowledge required is of two sorts: sometimes what has to be presupposed is that the thing actually exists; sometimes it is the meaning of the term employed, which has to be understood; and sometimes both at once.'[68] Education thus consists in learning the meaning of words, that is, of language, and advancing towards knowledge by studying examples.[69]

The theoretical sciences – mathematics, physics and theology – are chiefly taught by demonstration, that is, not on the basis of examples but starting from universal principles. That is the highest level of education through reason, which proceeds by means of syllogisms.

Thus, to a great extent, education through reason coincides with the scientific approach or theoretical philosophy, just as education through habit coincides with ethical action or practical philosophy. But the goal remains the same: happiness, the convergence of virtue and wisdom, the contemplative life of the philosopher or sage.

Conclusion

Although Aristotle's work has reached us in incomplete form and many important texts are missing, his theory of education can be seen to occupy an important place in his philosophical thinking as a whole. If the goal of man is one of his essential concerns, it is only through education that man fulfils himself completely. Human beings possess specific natural aptitudes, but it is only through education that they learn the business of being human and become truly human: 'It is precisely [nature's] deficiencies which art and education seek to make good.'[70] It is through education that culture is created.

Aristotle's theory of education has lost none of its relevance. His observations on educational policy and its role in society, his concept of a system of continuing education and education for peace and leisure, and his educational ideas have much in common with the concerns of those responsible for education today.

Notes

The quotations from *Politics* are taken from the translation by John Warrington for Everyman's Library, London, Dent & Sons, 1959; those from the *Nichomachean Ethics* are from the translation by Sir William D. Ross in 'The World Classics' series, London, Oxford University Press, 1954, reprinted in 1963.

1. For example, *On the Soul* III, 7, 431 a 16; *On Memory and Reminiscence*, III 449 b 31.
2. W. D. Ross, *Aristotle*, p. 7, London, Methuen, 1968.
3. Diogène Laërce, *Vie, doctrines et sentences des philosophes illustres*, V, 1, 2, Paris, Flammarion, 1965.
4. J. Burckhardt, *Griechische Kulturgeschichte*, Vol. IV, p. 397, Munich, Deutscher Taschenbuch Verlag, 1977.

5. P. Bamm, 'Alexander oder die Verwandlung der Welt', *Gesammelte Werke*, p. 411, Zurich, Droemer, 1967, 2 vols.
6. This generally accepted fact is disputed by Ingemar Düring, *Aristoteles* (Heidelberg, Carl Winter Universitätsverlag, 1966), p. 13.
7. Ross, op. cit., p. 7.
8. *Nichomachean Ethics* I, 10, 1099 b 11–12.
9. Ibid. I, 11, 1100 b 9–10.
10. Ibid. I, 13, 1103 a 4–5.
11. Ibid. II, 1, 1103 a 14–19.
12. Ibid. II, 1, 1103 b 23–5.
13. Ibid. X, 10, 1180 a 14–16.
14. *Politics* II, 13, 1332 a 35.
15. For example, in *Politics* VIII, 7, 1342 b 14–15: 'and so long as we hold that extremes should be avoided in favour of the mean and we declare that it is this mean that we should pursue [in education]'.
16. *Politics* VIII, 7, 1342 b 32.
17. Ibid. VII, 14, 1333 a 30 sq.; VII, 15, 1333 b 15.
18. *Nichomachean Ethics* X, 7, 1177 b 4.
19. *Politics* VII, 14, 1333 b 3.
20. J. Tricot's translation of *Politics* (Paris, J. Vrin), p. 528, note 2; see also Düring, op. cit., pp. 481 et seq.
21. *Politics* I, 13, 1260 a 42.
22. Ibid. III, 4, 1277 b 3–6.
23. Ibid. VIII, 6, 1341 a 17.
24. Ibid. VIII, 6, 1341 b 8–14.
25. Ibid. I, 2, 1253 a 26–8.
26. Ibid. II, 5, 1263 b 36–7.
27. Ibid. I, 2, 1252 b 30.
28. Ibid. VII, 13, 1332 a 31.
29. Ibid. V, 9, 1310 a 12–17.
30. Ibid. V, 9, 1310 a 18.
31. Ibid. VIII, 1, 1337 a 10-20; see also *Nichomachean Ethics* X, 10, 1180 a 34–5.
32. Ibid. VII, 15, 1334 a 15.
33. Ibid. VII, 14, 1333 a 31 b 4.
34. *Nichomachean Ethics* VIII, 13, 1161 a 17–18. The same idea is also to be found in *Economics* I, 4, 1344 a 7.
35. *Politics* VII, 16, 1335 a 5.
36. Ibid. VII, 16, 1335 b 12.
37. Ibid. VII, 17, 1336 a 28.
38. Ibid. VII, 17, 1336 b 35.
39. *Nichomachean Ethics* X, 10, 1180 a 1–4.
40. *Rhetoric* II, 14, 1390 b 9.
41. *Politics* VIII, 1, 1337 a 22.
42. *Economics* I, 5, 1344 a 27.
43. *Rhetoric* I, 5, 1361 a 8.
44. Ibid. I, 5, 1361 a 6.
45. *Politics*,VIII, 2, 1337 a 32–49.
46. Ibid. VIII, 2, 1337 b 5.
47. Ibid. VIII, 1338 a 10–13.
48. Ibid. VIII, 7, 1342 b 13.

49. Ibid. VIII, 5, 1339 b 18–21.
50. *Nichomachean Ethics* I, 1, 1095 a 2.
51. Ibid. X, 10, 1179.
52. *Politics* VII, 15, 1334 b 26–27.
53. *Nichomachean Ethics* II, 1, 1103 a 33; *Metaphysics* O, 8, 1049 b 30–3.
54. Ibid. II, 1, 1103 b 1–2.
55. *On the Soul* II, 5, 417 b 5.
56. *Nichomachean Ethics* X, 1, 1172 a 20.
57. *Poetics* 4, 1448 b 4–9 (quoted in P. Somville, *Essai sur la Poétique d'Aristote et sur quelques aspects de sa postérité*, Paris, J. Vrin, 1975, p. 44).
58. *Economics* I, 6, 1345 a 9.
59. *Nichomachean Ethics* VI, 9, 1142 a 12–20.
60. *On Memory and Reminiscence* I, 449 b 4 sq.
61. *Metaphysics* A, 2, 982 a 30.
62. Ibid. A, 1, 981 a 28–29.
63. *De Sensu* I, 437 a 12.
64. *Metaphysics* A, 1, 980 b 25.
65. *De Sensu* I, 437 a 16.
66. *Posterior Analytics* I, 18, 81 a 39–40.
67. Ibid. I, 1, 71 a 1.
68. Ibid. I, 1, 71 a 11–12.
69. See on this subject the analysis by Gunther Buck, *Lernen und Erfahrung*, 3rd ed., pp. 28 et seq., Darmstadt, Wissenschaftliche Buchgesellschaft, 1989.
70. *Politics* VII, 17, 1337 a 2.

Works on Aristotle

The literature on Aristotle is enormous, though books that examine the educational thoughts of the philosopher are somewhat rare. The following selected bibliography contains only those publications that deal with Aristotle the educator at some length and to which I have referred.

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49. Ibid. VIII, 5, 1339 b 18–21.
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AVICENNA (IBN SĪNĀ)

(A.D. 980?–1037/A.H. 370?–428)

'Abd al-Rahmān al-Naqib

This study attempts to present the educational aspects of an Arab thinker considered by ancient and modern scholars alike as the most famous of the Muslim philosophers.[1] Thus al-Dhahbī describes him as 'the leader of Islamic philosophy'.[2] G. C. Anawati has prepared a full bibliography of Avicenna's writings.[3] In 1950, to commemorate the millenary of his birth, the Dār al-Kutub al-Misriyya (Egyptian National Library) published a printed list of the titles of his works and their commentaries which are preserved there. We need only consult this list, containing more than 150 printed works and manuscripts and including all the branches of knowledge in his day, even poetry, to evaluate the extent of the culture which Avicenna acquired and handed down to us.

Avicenna's most famous works are those on philosophy and medicine. His philosophical views have engaged the attention of Western thinkers over several centuries, and his books have been among the most important sources in philosophy. In medicine, his great work, *al-Qanūn* (*The Canon*), was translated into Latin towards the end of the twelfth century A.D., and became a reference source for medical studies in the universities of Europe until the end of the seventeenth century.[4]

Avicenna has attracted the attention of scholars, past and present, who have written books, treatises and articles on him. One of these aspects, however, has not been very widely discussed, namely his views on education. Although Avicenna's writings on this subject, in comparison with his vast output on other subjects, are in fact considered to be very scarce, we do none the less find he deals with the same problems that confront educationists today. He speaks about humanity, society, knowledge and ethics. He devoted a treatise entitled 'Politics' to education; and he speaks at some length in *The Canon* about the upbringing of infants. Avicenna represents a lively illustration of the convergence of philosophy and education, for the educationist and the philosopher are both faced with the same problems: truth, goodness, the nature of the world, the meaning of knowledge and human nature, and so on. Obviously, Avicenna the philosopher has his own views on education. In addition, if we consider that he undertook teaching at a practical level for a considerable length of time, we realize that we have here a thinker whose philosophy was transformed into an educational theory which he himself practised.

The man and his age

The Sheikh al-Ra'is Sharaf al-Mulk Abū 'Alī al-Husayn b. 'Abd Allāh b. al-Hasan b. 'Alī Ibn Sīnā (known in Europe as Avicenna) was born in the village of Afshāna in the vicinity of Bukhara (in what is now Uzbekistan), in A.D. 980 (A.H. 370) – the generally accepted date[5] – of an Ismailian family concerned with intellectual sciences and philosophical inquiry, all of which had its effect upon the scientific career of Avicenna.[6]

So Avicenna lived in the fourth century of the Islamic era, the most flourishing 'Abbasid period in respect of learning and knowledge, which stands in complete contrast to the political situation at that time. Learning was much in demand, scholars were numerous, libraries were filled with the outpourings of Islamic scholars, and with translations of scientific works of other nations in accordance with the desires of caliphs and viziers.

It was just around the time of Avicenna's birth and in the subsequent years that Islamic Arabic culture reached its peak. Since the Arabic language was the accepted vehicle for the transmission of knowledge in this era, Avicenna studied Arabic under Abū Bakr Ahmad b. Muhammad al-Barqi al-Khwārizmī. As soon as he had mastered Arabic (his mother tongue being Persian), his father obtained for him a teacher of the Koran and another for literature. The young pupil learned quickly from his two teachers, and before he was 10 years old he knew the Koran and a considerable amount of literature as well, becoming 'almost a prodigy', as Avicenna says of himself.[7] Next he developed a leaning towards philosophy, geometry and Indian mathematics, so his father sent him to the school of Mahmud 'al-Massah' (the surveyor), a man learned in arithmetic, algebra and the movement of the heavens, as reported by al-Bayhāqī.[8] He also studied *figh* (Muslim law) and the Sufist movement with Ismā'īl al-Zāhid al-Bukhārī. And no sooner had Abū 'Abdallāh al-Natlī, the philosopher, arrived in Bukhara than Avicenna's father invited him to his house, hoping that the boy would learn intellectual subjects from him. If al-Natlī had any noticeable success, it is that he diverted the boy from a preoccupation with law and Sufism in favour of the theoretical sciences and philosophical studies.

Before long, the professor sensed that the boy no longer needed him, for Avicenna was very anxious to acquire learning and had a real craving for the sciences of wisdom. He was then attracted by medical science, and devoted himself to it for a brief time, until he surpassed all the scholars of his age in this science. Avicenna says:

> Then I desired to study medicine, and took to reading the books written on this subject. Medicine is not one of the difficult sciences, so naturally I became proficient in it in the shortest time, until the excellent scholars of medicine began to study under me. I began to treat patients, and through my experience I acquired an amazing practical knowledge and ability in methods of treatment.[9]

Avicenna was not content with the theoretical study of medicine, but he also practised it from humanitarian motives and in order to put his learning to good use. He achieved all this while still no more than 16 years of age. Then he devoted himself to intensive study and reading for a year and a half, in which time he studied logic and all known schools of philosophy. Before Avicenna had reached the age of 18, his scholarly fame for philosophical inquiry and medical knowledge had spread far and wide.[10]

It is clear from Avicenna's biographers that he was quick to learn, with a capacious memory, and wrote with ease. When he was 21 years old, he wrote the book *al-Majmū'* [The Compendium], at the request of some of his pupils, in which he dealt with all the theoretical sciences, except mathematics. Despite the political turmoil reigning in the land of Transoxania, which obliged him to move house a number of times, and the fact that he was acting as minister for certain princes, this did not prevent him from both studying and teaching science. He always had his own students and his study circles wherever he went, and this continued right up to the time of his death, on a Friday in Ramadan in A.D. 1037 (A.H. 428). He was buried at Hamadān in Persia.[11]

The philosophical foundations of Avicenna's educational views

HIS VIEW OF THE HUMAN BEING

The human being, in Avicenna's view, consists of both hidden (*sirr*) and open (*'alin*) elements. Known to us, and tangible, is the perceptible human body with its organs and its cells. 'Sensory perception stops at its exterior, while anatomy (dissection) enables us to learn about the interior; the hidden part consists of the powers of its mind.'[12] These mental powers motivate the human being, and cause it to carry out its various activities and behave as a human being. To Avicenna, the human being is a tangible body on the outside, revealed within by means of anatomy – as we see in his books, such as *The Canon* – and we do not have any difficulty today in accepting this. We still have to look at the mental powers or faculties which motivate this body.

Mental powers and their function

Avicenna classifies these mental faculties into three groups.

First, the group of vegetative faculties, which humans and plants both share. They are concerned with the survival of the human being, growth through nutrition and preservation of the species through reproduction. They thus comprise three faculties: feeding, growth and reproduction.[13]

This group is followed by the faculties that make animals superior to plants, and are shared by human beings and animals. Typically, they allow human beings to be attracted to what they desire and to be repelled by anything harmful arousing fear or anger. They comprise, in his view, two faculties: a faculty of motion and a faculty of comprehension or perception. Each is, in its turn, divided into other faculties: the motive faculty consists of an instinctive reaction, and a rational movement, permitting human beings either to act or desist from action; comprehension is also divided into a perceptive faculty of the exterior world through the five senses – sight, hearing, smell, taste, touch – and one directed from within, by way of common sense, imagination, memory and reflection.[14]

Finally, there is the group of faculties that distinguish human beings from animals; in Avicenna's view they comprise two faculties: an active faculty directing the human's practical conduct, and a cognitive faculty directing his intellectual conduct. Both are given the name 'intelligence', but the first is practical and the second is contemplative.[15]

The relationship between the mental faculties and the body

All these faculties are merely different functions of the human soul. For the human soul is one, and those three powers are different functions of it.[16]

To Avicenna, the soul is immaterial, and is quite different from the substance of the body.[17] It is not pre-existent, coming into being together with the body;[18] but it survives and does not perish when the human being dies. Avicenna says:

> When the body dies and decays, the substance of the soul is released from its connection with the body; and if it is perfected in knowledge, wisdom and good deeds, it is drawn towards the divine lights, the lights of the angels and of the heavenly kingdom, just as a needle is drawn towards an enormous mountain by magnetic force; the divine presence flows over it, and it achieves real tranquillity, as the call comes to it from the heavenly beings: 'Oh soul at complete rest, return to thy Lord, well pleased and well pleasing. Enter then among My devoted servants! Enter My heaven!'.[19]

Is the human being good or evil by nature?

Avicenna is of the opinion that the human being is born 'upon the natural disposition' and is neither good nor bad by nature, though tending more to good than to evil; and this human being changes and adapts according to the influences of the environment and its education systems. If he is accustomed to evil, he will become evil; if accustomed to good, he becomes good. On this point, Avicenna says:

> When the child is weaned, then his education and his moral training begin, before he is attacked or overcome by blameworthy morals or objectionable characteristics. For evil morals so quickly take over the young boy, and bad habits soon prevail; and if any of these gain influence over him they overcome him, and then he cannot separate himself from them nor struggle against them.[20]

Avicenna returns to this elsewhere by saying:

> All moral characteristics, the good and the bad, are acquired; and it is possible for the human being, when he has as yet no specific moral character, to obtain them for himself; and when his soul also chances upon some specific characteristic, he may move, by his own volition, away from it towards its opposite.[21]

HIS VIEW OF SOCIETY

The social nature of the human being

The human being, as created by God, is not able to live in isolation but needs society for his survival, his growth and his education. Avicenna says:

> The human being differs from all other animals in being unable to live well as an isolated individual . . . with no partner to help him satisfy his needs. He must be supported by another of his kind, who, in turn, must also be supported by him and by his like, so that, for instance, one will provide vegetables for another, while the other makes bread; one will sew when the other provides the needle. When they join forces they are complementary. This is why human beings are compelled to found societies.[22]

The divine nature of society

The whole of society must submit to the righteous holy law of God, through the Prophet who legislates it, guided by divine revelation. For society needs someone to legislate its affairs, and this legislator must be a human being who stands out from the others through qualities that ensure that his word is obeyed and the whole people follow him. This is Avicenna's justification for the existence of the Prophet, the specific miracles with which God distinguished him, and the need for the prophecy. Avicenna says:

> So it is necessary that there should be a Prophet, and necessary that he should be a human being, and also that he should possess a special quality not found in other people, so that they are aware of something in him not found in themselves; thus he is set apart from them and has miraculous powers.[23]

The gate of ijtihād *must be left open*

Since the Prophet, in the Avicennian scheme of things, is the one to lay down laws governing society by revelation from God, it is necessary that the gate of *ijtihād* (personal interpretation of Islamic law) be left open to allow for any new events and circumstances in the following eras, and especially anything connected with political and practical affairs. The Prophet defines the general principles in these matters, while particular implementation is left to the circumstances. Avicenna says:

> A great deal of concerns, especially in social affairs, must be entrusted to personal interpretation; for there are judgements concerning special circumstances, which cannot be precisely determined. . . . Particular rules should not be laid down for them, and making such laws would lead to confusion, for they change with the times.[24]

The choice of the caliph

Since the Prophet was a human being with a limited lifespan, he must have a successor or *khalifa* (caliph). This successor is the one to rule after the Prophet, his mission being to implement 'the teachings of the Prophet'. This means that every ruler in Islam is a successor. So how is this successor to be chosen? This has been one of the greatest problems in Islamic thinking throughout the ages. Avicenna's solution was for the choice to be made by the Prophet's command in his lifetime, and by consultation and consensus of those in authority after his time. 'The Prophet did not appoint a successor, and did not wish the people in authority to choose anyone unless they were sure he alone had political power; that he was able, courageous, virtuous and with an ability to organize, knowledgeable in the holy law so as to be unsurpassed in understanding its secrets and fathoming its depths.' Obedience will be paid to the ruler who fulfils these conditions and possesses these qualities. When these conditions are contravened, then it is obligatory for all to oppose him; if they do not, they disobey God and are unbelievers.[25]

From all the above it is clear that society, as seen by Avicenna, is a collection of individuals very differently endowed with skills and capacities. This differentiation requires some kind of specialization, and this in turn demands co-operation and interaction between individuals in society. If these take place haphazardly, the social system may break down. Thus there is a need for 'a ruler' who governs life in society. His task is to implement the principles of the law, wherever there is a text, and to be an independent interpreter *(ijtihād)* who consults people in authority where there is no text. The ruler or prince has an urgent and very real need to conduct this consultation.[26]

Although this allegorical picture of society, as Avicenna saw it, differed in certain respects from the Persian society in which he lived, this was in fact the society on which he based his educational thinking, for in this field we see him maintain the inheritance of this 'divine society' represented in its beliefs, rites of worship and its ethical code. He would recommend that this was the inheritance to be presented to the child in the first stages of his education.

HIS VIEW OF KNOWLEDGE

Avicenna considered that the soul, with its various faculties, is the path to knowledge or perception for it distinguishes between sensory perception and intellectual perception. The means of sensory perception, as stated, are the five external and the four internal senses. These are especially relevant to sensory perception. Sensory perception occurs when sensory stimuli reach the organs of perception and are registered and comprehended by the sensory faculties. Avicenna says: 'It appears that every perception is the acceptance of the picture of the thing perceived, in one way or another'.[27] And he says of sensory perception itself: 'The pictures of all the things perceived by the senses are conveyed to the organs of perception and are impressed upon them, and are then perceived by the sensory faculties'.[28] Sensory knowledge, in Avicenna's view, is acquired knowledge, its source being the sensed stimuli and its means the external and internal faculties of sense. The subject of intellectual knowledge is then simply the thing perceived, and its means is the human being's speculative faculty entrusted to him by God, which is capable of acquiring that rational knowledge.

In order that intellectual knowledge should be effective, it must have a particular structure and an instrument to regulate its operation, and also to verify the soundness of the thought and reasoning. This instrument is logic, for logic is the theoretical art or the instrument which protects the intellect from making a mistake.[29]

HIS VIEW OF ETHICS

Avicenna saw moral character as an expression of 'a natural disposition whereby certain actions issue from the soul with ease, without prior thought'.[30] This means that character is not merely the practice of good behaviour, but the practising of it at every appropriate occasion, because the person has accustomed himself to it and is unable to act otherwise. We can describe a man as truthful only when he is habitually truthful in his speech, and the same applies to other admirable moral characteristics. In the same way, we can describe someone as a liar only when he habitually tells lies, and the same for other character failings.

For the human being to achieve an excellent morality, he must govern his reason well in all his conduct, and punish his soul if it departs from the right path, and reward and encourage it when it follows the path of virtue. Avicenna says: 'The human being must prepare for his soul both reward and punishment, and govern it thereby.'[31]

It is also obligatory for the human being, if his soul encounters a moral evil, to recognize its opposite, and force his soul to go towards this excellent virtue and accustom it to that extreme path, in order that his soul shall eventually acquire the middle path.

In all this, the reference point is reason. When the human being knows how to obey the commands of reason, he is on the road to being educated or virtuous. Reason is what defines good conduct, and the standards by which it is defined are the middle path on the one hand and equity on the other. Reason can itself recognize the middle path for every virtue, since virtue stands in the middle between two bad characteristics. Reason recognizes equity from the harmony among these virtues, so that no virtue is dominant over the others, and the human being can maintain an even balance in all his morality, without exaggerating one virtue at the expense of the others.

It is to be noted here that, while the foundation of spiritual and ethical values found in the Koran and the Sunna (the words and deeds of the Prophet) is based on the religious constraint deep in the human soul, for Avicenna it arises from the domination of reason over the faculties of wrong-doing. Now it is clear that to comprehend moral values, their simple acceptance by reason is not enough. It is necessary rather that they should take root in the heart, where the 'moral sense' becomes a part of the human being's behavioural structure.

Avicenna is aware that such a conception of ethics is confined to scholars or philosophers, or at least to an élite. He is not concerned with the common people in this ethical theory, since they do not act because they are persuaded by or respect reason, but rather through fear of punishment, in this world and in the hereafter.[32]

In Avicenna's view, then, morality is an acquired matter, not inborn, and it is within a person's capacity to acquire any such morality he wishes through habituation, imitation, fear or wisdom. Avicenna considered that the process of acquiring morality begins from the infant's birth, because the child is exposed to problems and difficulties soon after birth and in the early stages of childhood, and these influence his psychology and temperament, and hence his ethical development. For this reason Avicenna paid great attention to the early stages of childhood and everything connected with it: the morality and culture of the wet-nurse, the teacher and the child's companions in the place where he studies.

Avicenna's educational views

THE AIMS OF EDUCATION

Avicenna sees the aims of education as the overall growth of the individual: physical, mental and moral; followed by preparation to live in society through a chosen trade according to his aptitudes. So Avicennian education does not neglect physical development and everything implied by it: physical exercise, food and drink, sleep and cleanliness.[33] It does not aim exclusively at intellectual development and the amassing of knowledge; likewise Avicenna does not devote his attention to the moral aspect alone, but aims at the formation of a personality complete in body, mind and character. He does not restrict the task of education to creating the complete citizen, but rather sees that education must also prepare him for a profession whereby he can contribute to the social structure, because society, in Avicenna's view, is built entirely on 'co-operation', on the specialization of each individual in a craft or profession and on the mutual exchange of services between its individuals.

Although Avicenna was a philosopher and thus belonged to a group of people who believed that Greek thought was that of an educated élite and that philosophers had an undisputed superiority over all others, yet for him the aim of education was not restricted to the training of philosophers. Therefore Avicenna made 'the education of the philosopher' one of his educational aims among others at the specialization stage, to which anyone who wished could direct himself in accordance with his aptitudes and inclinations. This is the difference between his education system and that of al-Ghazāli, for example, or al-Qabisi; for while we find that 'the education of the philosopher' was hardly included in their writings, Avicenna goes into great detail about it, the sciences which should be studied, and the aim and the benefits of each one of them.

We can say then that education in Avicenna's opinion is the forming of an upright citizen, sound in body and mind, and preparing him for some intellectual or practical work. Intellectual work could be connected with the traditional sciences or the theoretical sciences that Avicenna esteemed so highly. He counts 'industry' or 'crafts' as a kind of instruction requiring vocational preparation and specialization. He says: 'Instruction and learning include the practical, like learning carpentry and dyeing, for it is only acquired by diligent practice of that craft.'[34]

EDUCATIONAL STAGES

The infant stage: from birth until the second year

Avicenna's concern with the child begins at birth.

> When he is born, the child's umbilical cord must be cut at once, above four fingers' length, and tied with clean, fine wool twisted lightly, so as not to cause pain; if we wish to swaddle him, then the midwife must first massage his limbs gently; she must inspect his body where this is necessary, moving every limb into the best position; all of this by gentle touching with the tips of her fingers which should become a regular habit, and she should often wipe his eyes with silk or something similar.[35]

Avicenna is greatly concerned with everything connected with this stage: sleep, bathing, suckling, exercise suitable to the infant's age. About the infant's sleep, Avicenna says:

> He should be put to sleep in a room with a mild temperature, not cold; the room should be fairly well shaded, with no direct rays of light. When he lies in his cot, his head should be higher than the rest of his body. Care must be taken that the cot does not allow his neck or limbs or his spine to be twisted in any way.[36]

Avicenna is insistent that the infant should be bathed more than once a day, and that the mother should herself suckle her child: he speaks at length on the mother's milk, the normal length of breast-feeding, the number of feeds per day, and weaning, which should be undertaken gradually. From his long discourse we shall mention briefly the following extracts: When the infant sleeps after feeding, the cradle should not be rocked violently, which would disturb the milk in his stomach, but only gently. To cry a little before feeding is beneficial. Breast-feeding normally lasts two years, and when the infant desires something besides milk this should be given gradually without forcing him. When his teeth begin to appear, he can move in gradual stages from being fed on mother's milk to stronger food. At first this can be bread chewed by the nursing mother, then bread soaked in water and honey, juice or milk. This should be given to him in small quantities and he should gradually be kept from the breast. As Avicenna says, 'weaning should be gradual and not take place all at once'.[37]

The stage of childhood

This stage lasts from the third to the fifth year, at the time when 'the child's body strengthens, his tongue is free, and he is ready for instruction, and his hearing is attentive'.[38] In *The Canon,* he defines the start of the sixth year as the end of that stage, whereupon he enters 'the stage of primary teaching'. Avicenna says: 'And when he has reached the age of 6 years, he should be brought to the tutor and the teacher'.[39]

We see Avicenna not concerned here with any specific kind of teaching, but merely with creating a happy childhood as regards physical, mental and moral health. Therefore he concentrates here on three educational concerns:

1. The child's morals, and keeping him away from any harmful influences which might affect his soul and his morals.
2. Development of the body and movement. Regarding the need for play and exercise in that stage, Avicenna says: 'When the child wakes from sleep, it is best for him to be bathed, then let him play for an hour; then he is given a little food to eat, then he is allowed to play for a long time, then he is bathed,

then fed. Children should not be allowed to drink water straight after food, for then it would go into their system raw without being digested.’[40] Games form a necessary element in the child’s life at this stage, whereby he acquires various physical and motor skills. He also learns how to live in a group.

3. The development of taste and behaviour. Avicenna had an interest in music and considered it necessary for the child to listen to it, so that from the time he is in the cradle, he goes to sleep to the sound of music. That prepares him later to learn music; and this education in taste will be further refined in the next stage, when he learns simple poetry with easy rhymes, bringing the child pleasure as well as encouraging him to appreciate virtue.

The first stage of teaching

This stage begins at the age of 6 and ends approximately at 14. It is on reaching this age that the child must begin receiving education of a more serious kind, gradually moving away from games and sport, and beginning organized study. ‘Until [children] complete their fourteenth year, they must gradually decrease their sporting activities.’[41]

At this stage, children learn ‘the principles of Islamic culture’, from the Koran and Arabic poetry, calligraphy, and Islamic rules of good conduct. This is a common stage for all children, since preferences have not yet appeared. Later, aptitudes make their appearance, and in accordance with these every individual can be given particular instruction.

Avicenna considers that group rather than individual instruction is best at this level. He advises that the child be brought up with others:

> The child should be taught alongside the children of the nobility whose conduct is good and whose habits are acceptable. For one child will teach another, learning from him and becoming his friend. If one child is left alone with the teacher, that is most likely to be unsatisfactory for them both; when the educator moves from one pupil to another, the risk of boredom is less, the pace of activities is more rapid and the child is eager to learn and succeed.[42]

The specialized education stage (age 14 onwards)

This stage comes after the child has completed general primary teaching, and his aptitudes have become apparent either to continue in the field of education or to learn a craft and earn a living. In the light of these aptitudes, the young person defines for himself the type of study or the type of vocational work that appeals to him during the higher or specialized stage.

Avicenna emphasized the need to have regard for the young person’s preferences at this level when defining his future, his studies and the choice of profession; he insists that young people should not have any kind of study or work forced on them which does not correspond to their abilities and inclinations. The teacher must know

> that not every craft the child desires is possible nor opportune for him, but the one that conforms to his nature and suits him. If skill and crafts were simply obtainable on demand, without question of appropriateness or suitability, then no one would be devoid of them, and people would all agree to choose the most noble skills and the highest of crafts.[43]

What then are the standards for defining educational and vocational inclinations among students at this stage? And how can the teacher direct the student to a type of learning or profession which he sees as suitable for him?

Avicenna considers that this is evident directly from the conduct of the child, and 'the boy's guide', either his father or his teacher, will notice specific inclinations. From the practical angle, this can be ascertained by observing the student's conduct. Defining the true origin of inclination or ability is for Avicenna a difficult matter: 'These choices and these suitabilities and conformities have obscure and hidden causes which tax human understanding, and are too subtle to be measured or identified, so only the Almighty knows them.'[44]

Avicenna remarks that students differ in their aptitudes and abilities, and sees the need of educational and professional guidance at that stage. There was nothing unusual about that in an age when science and knowledge were in full expansion, when crafts and professional groups abounded, and when trade guilds were found everywhere. Likewise Avicenna was aware of the 'mentally retarded' and the 'simple minded', who were incapable of benefiting from any kind of theoretical or practical education. He considers that they and their like must be given a special place apart where they would live under the supervision of a warden. Those for whom there was no hope of improvement should have their care and their sustenance guaranteed. Avicenna says:

> It may happen that a person's nature is incompatible with any culture or attention, and he learns nothing from them. This can be seen from the fact that people of intelligence have wished to educate their sons, and have expended much effort and expense on that purpose, without attaining their objective.[45]

Avicenna points out very clearly the necessity for educational and vocational guidance. He appreciated the very close connection between education and the economic and social needs of society, as well as the role of individual aptitudes and abilities in defining the type of learning or trade in which each student should specialize; thus, he makes the higher stage of education that of specialization. Each student would then specialize in the science or the trade which he wished to be his future occupation, and the source of his income in working life. Avicenna perceives too that this specializing stage comes only after a period of general education in which all students participate, and where they learn the principles of Islamic culture, before allowing their talents and special aptitudes to come to the fore when all that is completed. So it is on this basis that the higher specialized stage follows.

TEACHING METHODS

Infants under 6 years

We have pointed out that Avicenna is concerned at this stage with the child's sensory and motor development and with moral and emotional training. We are not aware of Avicenna having indicated any specific methods at this stage, apart from physical exercise and music; one for the child's growth and his physical and motor development, so that he should acquire moral and mental habits; and the other to refine his feelings and to heighten his emotions.

Avicenna is very much concerned with games at this age, as well as in primary education. He shows us the role of exercise in education and its necessary place in the child's life, and explains that exercise differs according to age, and also with the child's ability. For exercise may be much or little; it can be very vigorous, demanding considerable physical strength; it can also be slight; swift or slow; it can be rapid, combining strength and speed; and again it can be relaxing. Each of these types has its own appropriate place and necessity in the life of the young child.[46]

But Avicenna is as concerned with play and exercise at this level of education as he is with 'musical education'. We know that Avicenna was skilled in this art, both as a composer and a performer.[47] So it is in the capacity of an expert that he mentions the feelings of pleasure, joy, purity and the sense of exaltation that music brings about in the child; and also the way the child can learn to perceive harmony and discord, treble and bass, and how this comes about. Avicenna speaks at length about music, its composition and rhythm, and the instruments used.[48]

So sport and music are the most important components of the method in this stage. They are the two methods of instruction that prepare the child for organized 'primary teaching' in the next stage, when he reaches 6 years of age.

Methods at the 'primary' stage (6 to 14 years)

The components of study in this stage are the Koran and its memorization, learning to read and write, acquiring the outlines of religion and study of some Arabic poetry; besides which he is again aware of the need for play and exercise. Avicenna says:

> When the boy's joints strengthen, and his tongue is apt, and he is ready for instruction, and his hearing is attentive, he begins to learn the Koran, and is shown letters of the alphabet, and is instructed in the outlines of religion. The boy should recite the *rajaz* [poetic verse], then the *qasida* [classic ode]; the *rajaz* is easier and is more quickly learned because its stanzas are shorter and its rhythm lighter.[49]

The child should first recite the *rajaz*, since it is easier to remember. The verses the child memorizes must make plain the usage of good manners and of learning, and the disgrace of ignorance and foolishness; it must encourage respect towards parents, acceptable behaviour, hospitality to guests, and high moral standards.[50] This means that the poetry that Avicenna wishes to present to the child at this stage is literature with a message, which contributes to his training, giving him the moral education that Avicenna considers to be the human being's goal and the source of his happiness.

The curriculum put forward by Avicenna reminds us of society's concern at that time with Islamic culture and its basic elements: the Koran, poetry, devoutness and ethics. On the other hand, he does not ignore the child's need for play, movement and diversion, so that his curriculum does not really differ very much from that followed by the modern child in the majority of Islamic countries today, except for its concentration upon memorizing the Koran and in giving this learning absolute priority.

Methods of higher instruction (age 14 onwards)

Instruction at this stage is specialized according to the pupil's future occupation, which has been chosen depending on his inclinations and aptitudes. This is an open-ended education, meaning that it continues throughout life. Avicenna says:

> When he has finished learning the Koran and memorizing the fundamentals of the language, at that time one should look into what occupation is desired for him, and he should be directed on this path; if [his teacher or guardian] wishes him to study literature, then to the study of language he adds that of epistles, speeches, argument and dialogue, and similar subjects; calculation is explained, and he is initiated into administration through a practical course; care is taken with his handwriting and if he seems destined for another discipline, he is guided accordingly.[51]

Avicenna divided the education of his day into theoretical instruction and manual or practical instruction (trade, jewelry-making or another craft). This practical learning 'is acquired by diligent practice in the activity of that craft',[52] or by being trained in it. Theoretical education, on the other hand, is that which is acquired from 'speech heard or understood, which naturally conveys a belief or an opinion, or creates an impression that did not exist before'.[53] This theoretical teaching is also made up of two kinds: 'transmitted' theoretical teaching, and intellectual or philosophical theoretical teaching. Each type of theoretical or practical teaching – and likewise every form of transmitted or intellectual teaching – has its means and methods which prepare the individual for specialization in the chosen field. We would wish that Avicenna had spoken in greater detail about these three methods of teaching (transmitted, intellectual and vocational). Unfortunately, he restricted himself to mentioning them, which does, however, indicate their existence at that time. His subsequent writings speak at greater length about the methods by which the students of the intellectual sciences were taught.[54]

THE TEACHING OF GIRLS

Avicenna did not speak about girls as much as he did about boys. However, the fourth century of the Islamic era witnessed great activity in the field of education from which women shared to a certain extent since there were some outstanding women lawyers, poets and singers at that time.[55] Perhaps this is due to the fact that, in Avicenna's view, a woman did not need to earn her living like a man, but he made it clear that the man was expected to protect and care for her, and support her financially.[56] Thus a woman did not need to follow specialized or higher education, as a man did in order to prepare him for work or a craft from which he would earn his living in the future.

The teaching required by a woman was such as to fit her to be a wife, mother and sister. It appears that it was customary in Avicenna's day for this education to be carried out at home and to be taken care of by the girl's family or by a private tutor assigned to this task. It is clear that Avicenna acknowledged this individual style in teaching girls, and left their teaching to their families, who would give them whatever moral, religious and cultural preparation they desired.

METHODS OF INSTRUCTION

The method of learning the Koran, calligraphy and Arabic literature

In the lands of Transoxania in Avicenna's day, handwriting was taught by the Koranic teacher, as Ibn Khaldūn makes clear in his *Muqaddima*.[57] It appears that when Avicenna says: 'When the boy's joints strengthen, and his tongue is apt, and he is ready for instruction, and his hearing is attentive, he begins to learn the Koran, and is shown letters of the alphabet . . .',[58] he refers to the practice current in his day for teaching 'handwriting' by drawing on a wooden 'slate'. The teacher would draw the letters of the alphabet, and the child would have to learn them, both by heart and by hand, until he could write and pronounce them perfectly. Then came the next stage, that of composing individual words and sentences. After that the pupil could begin writing with his own 'slate' the Koranic verses that he had learnt by heart.

Avicenna says: 'And when he has reached the age of 6 years, he should be brought to the the tutor and the teacher';[59] to the tutor so that he can memorize some Arabic poetry and to the teacher to memorize the holy Koran. Avicenna considers that the tutor should choose poems that are simple in expression and language, with short stanzas and a light metre so that students can easily memorize and understand them. The tutor must be careful to select poetry that has been composed with a high moral purpose, praising noble virtues and condemning misdeeds, because the child during these years is strongly influenced by what he reads and hears.[60]

Styles of moral education

Avicenna had a clear view of the psychological bases of moral education. Here he has a double approach, since he is interested both in a concern for incentives, as represented by good examples, a healthy environment, encouragement, persuasion and kindness, as well as in preventive measures, such as angry admonition and punishment.

He is much concerned about the harm that could result from physical punishment, permitting it only in cases of necessity, considering that excessive beating includes an element of revenge and does not achieve the desired educational effect.[61]

Various methods of higher education

When we read accounts of the teaching methods followed by Avicenna himself in his study circles and in imparting learning to his students, we find that he did not restrict himself to any one method. Sometimes he dictated his lessons to the students, sometimes he held discussions with them; most often he gave them explanations, composed treatises or books to present his point of view, or replied to some epistle, and he would advise his students to read, investigate and study, indicating to them particular reference books for every branch of learning.

Practical application

After the student had chosen the particular branch of learning in which he was going to specialize and had made some progress, Avicenna advised him to put this learning into practice. If the student was studying medicine, he should try to apply himself in a practical way to this profession. If he was studying literature, calligraphy and composition, he should try to earn his living by his pen. Avicenna's intention was for the student to become more responsive to his studies and to have greater faith in their usefulness, as well as perfecting them through practical application, at the same time as learning to earn a living. Avicenna says:

> If the boy is immersed in his craft to some extent, then it is a good moment for him to earn his livelihood from it, because it brings two advantages: first, when he is rewarded by the enjoyment of earning through his own craft and recognizes its potential, he will have esteem for it, and will be all the more motivated to excel in it and to explore all its secrets; and, secondly, he becomes accustomed to earning his own livelihood.[62]

TEACHER TRAINING

Avicenna perceives how important it is to make a good choice of teacher, and to give him a good theoretical and moral training. Indeed, the teacher's role in educating young people goes beyond presenting them with facts, for students acquire from their teachers a great many habits, ideas and values. Therefore, Avicenna requires that the teacher should be an excellent person, discerning the values of society and moral virtues so that the students will follow him as a guide and model. Avicenna says:

> The educator must be intelligent, a man of religion, . . . skilful at instructing children, dignified, calm, far removed from foolishness or pleasantries, not given to levity, neither rigid nor dull; on the contrary, he should be kind and understanding, virtuous, clean and correct. He is one who has served the leaders of the nation, knows the kingly virtues in which they take pride and the correct manners used in society.[63]

Avicenna noticed that the teacher not only conveys knowledge and facts to his students, but brings them into contact with those values and ideas in which he believes, and those manners and virtues with which he is endowed. If he for his part transmits knowledge with care and feeling, then the students will copy his manners and his virtues, effortlessly and without realizing it, in the process of 'learning by imitation'.[64]

This glance at Avicenna's educational thinking shows him to be an original thinker, with distinctive educational views for his period. In addition, he was the leader of a philosophical school which influenced education both in the Islamic East and the Christian West.[65] For these many reasons, we still have a great deal to learn from him today.

Notes

1. A. F. al-Ahwānī, *Ibn Sinā*, p. 17, Cairo, Dār al-Ma‘ārif, 1958; P. Sa‘d, *Ibn Sinā al-Faylasūf ba‘d Sittmi’a Sana ‘alā Wafātih*, p. 62, Beirut, 1937.
2. Al-Dhahbī, *Siyār A‘lām al-Nubalā*, No. 12195/2, Part I, p. 119 (photocopy/microfiche). Dār al-Kutub al-Misriyya.

3. G. C. Anawati, *Mu'allafāt Ibn Sīnā,* Cairo, Dār al-Ma'ārif, 1950.
4. A. Wolf, *History of Science, Technology and Philosophy in the Sixteenth and Seventeenth Century,* London, 1935; A. Mielli, *al-'Ilm 'ind al-'Arab wa-Āthāruhu fi Tatawwur al-'Ilm al-'Ālami* (trans. by 'Abd al-Halim al-Najjar), pp. 197–8, Cairo, Dār al-Qalam, 1962.
5. Baihāqi related this in *Tārikh Hukamā' al-Islām*; al-Qifti in *Akhbār al-'Ulamā,* and Ibn Khallikan in *Wafāyat al-A'yān.* Ibn Abi Usaybi'a in *'Uyūn al-Anbā'* is alone in saying that he was born in the year A.H. 375. There is another source saying he was born in A.H. 373.
6. Ibn Abī Usaybi'a, *'Uyūn al-Anbā',* Vol. II, p. 2, Cairo, al-Matba'a al-Wahhābiya, A.H. 1299.
7. Ibid.
8. Al-Bayhāqī, *Tārikh Hukamā' al-Islām,* p. 53, Damascus, Matba'at al-Taraqqī, 1946.
9. Ibn Abi Usaybi'a, op. cit., p. 3.
10. Ibid.
11. See: A. Sohiel, *Avicenna: His Life and Works,* Vol. 8, p. 201, London, Unwin, 1938; A. al-Naqib, *Falsafat al-Tarbiyya 'ind Ibn Sīnā,* p. 38, Cairo, Dār al-Thaqāfa, 1954.
12. Ibn Sīnā, 'Risālat al-Quwwa al-Insāniyya wa Idrakātuhā', *Majmū' al-Rasā'il,* p. 212, Cairo, Matba'at Kurdistan al-'Ilmiyya, A.H. 1328; *Tis' Rasā'il fil-Hikma wat-Tabī'iyāt,* p. 30, Bombay, Kalzar Husna, A.H. 1318.
13. Ibn Sīnā, *al-Najāt,* p. 158, Cairo, al-Bābi al-Halabī, A.H. 1357; and *al-Shifā,* Vol. I, p. 294, Tehran, Hajar, A.H. 1353.
14. Ibn Sīnā, *al-Najāt,* op. cit., pp. 159–63; *al-Ishārāt wal-Tanbīhāt,* Vol. I, p. 125, Leiden, 1892; *al-Shifā,* op. cit., Vol. I, p. 333; Muhammad 'Uthman Najātī, *al-Idrāk al-Hissī 'ind Ibn Sīnā,* p. 117, Dār al-Ma'ārif, 1961.
15. Ibn Sīnā, *al-Najāt,* op. cit., p. 164; 'Risālat al-Quwwa . . .', op. cit., p. 215–16.
16. Ibn Sīnā, *Ahwāl al-Nafs* (ed. by A. F. al-Ahwāni), pp. 108–10, Cairo, Dār Ihyā al-Kutub al-'Arabiyya, A.H. 1371; *al-Najāt,* op. cit., pp. 189 et seq.
17. Ibn Sīnā, *al-Shifā,* op. cit., Vol. I, pp. 248–57; *Risālat fī Ma'rifat al-Nafs al-Nātiqa* (ed. by A. F. al-Ahwāni), pp. 183–5, Cairo, Dār Ihyā al-Kutub al-'Arabiyya, A.H. 1371.
18. Ibn Sīnā, *Risālat fi Ma'rifat . . .,* op. cit., p. 97–8.
19. Ibn Sīnā, *Risālat al-Shifā min Khawf al-Mawt wa-Mu'ālajāt al-Ihtimām bihi,* pp. 37–8, Cairo, Matba'at al-Sa'āda, A.H. 1335. (Collection Jāmi' al-badī'.)
20. Ibn Sīnā, *Kitāb al-Siyāsa* (ed. by Louis Maaluf), *Majallat al-Sharq* (Cairo), 1906, p. 1074.
21. Ibn Sīnā, *'Ilm al-Akhlāq, Majmu' al-Rasā'il,* op. cit., p. 198.
22. Ibn Sīnā, *al-Najāt,* op. cit., p. 303; *al-Shifā,* op. cit., Vol. II, p. 556–7.
23. Ibn Sīnā, *al-Najāt,* op. cit., p. 304.
24. Ibn Sīnā, *al-Shifā,* op. cit., Vol. II, p. 563.
25. Ibid., p. 564.
26. Ibn Sīnā devotes a long account of the consultation and on the sciences which 'people of consultation' should master. See: *al-Majmā' aw al-Hikma al-'Arūdhiya fi Ma'ānī Ritūriqā,* pp. 34–42, Cairo, Maktabat al-Nahdha al-Misriyya, 1950.
27. Ibn Sīnā, *al-Shifā,* op. cit., Vol. I, p. 295.
28. Ibn Sīnā, *al-Najāt,* op. cit., p. 160.
29. Ibn Sīnā, *al-Ishārāt wal-Tanbīhāt,* op. cit., pp. 2–3.
30. Ibid., p. 296.
31. Ibn Sīnā, *Kitāb al-Siyāsa,* op. cit., p. 1039.
32. Ibn Sīnā, *al-Shifā,* op. cit., Vol. II, p. 565.
33. A. al-Naqib, op. cit., p. 109–12.
34. Ibn Sīnā, *al-Burhān min al-Shifā,* p. 57, Cairo, al-Matba'a al-'Āmiriyya, A.H. 1375.

35. Ibn Sīnā, *al-Qanūn*, Vol. I, p. 150, Cairo, Matba'at Bulāq, A.H. 1294.
36. Ibid., p. 151.
37. Ibid., p. 153.
38. Ibn Sīnā, *Kitāb al-Siyāsa,* op. cit., p. 1034.
39. Ibn Sīnā, *al-Qanūn*, op. cit., Vol. I, p. 150.
40. Ibid., p. 157.
41. Ibid., p. 158.
42. Ibn Sīnā, *Kitāb al-Siyāsa,* op. cit., pp. 1074–5.
43. Ibid., p. 1075.
44. Ibid.
45. Ibid., pp. 1075–6.
46. Ibn Sīnā, *al-Qanūn*, op. cit., Vol. I, p. 159.
47. Z. Yusuf, 'Mūsīqā Ibn Sīnā', *al-Kitāb al-Dhahabī lil-Mahrajān al-alfi li Ibn Sīnā*, pp. 123–35, Cairo, Matba'at Misr, 1952.
48. Ibn Sīnā, 'Risālat al-Mūsīqā', *Majmū' al-Rasā'il,* op. cit., pp. 2–12.
49. Ibn Sīnā, *Kitāb al-Siyāsa,* op. cit., p. 1074.
50. Ibid.
51. Ibid., p. 1075.
52. Ibn Sīnā, *al-Burhān min al-Shifā*, op. cit., p. 57.
53. Ibid.
54. Avicenna wrote at length on these sciences in his book *Aqsām al-'Ulūm al-'Aqliyya,* in *Majmū' al-Rasā'il*, op. cit.
55. A. Fahmi, *Mabādi' al-Tarbiyya al-Islamiyya*, pp. 148–50, Cairo, Lajnat al-Ta'līf wal-Tarjama wal-Nashr, A.H. 1366.
56. Ibn Sīnā, *al-Shifā,* op. cit., Vol. II, pp. 562–3.
57. *Muqaddima* of Ibn Khaldūn, Vol. III, p. 950, Cairo, Matba'at Bulāq, A.H. 1350.
58. Ibn Sīnā, *Kitāb al-Siyāsa,* op. cit., p. 1074.
59. Ibn Sīnā, *al-Qanūn*, op. cit., Vol. I, p. 157.
60. Ibn Sīnā, *Kitāb al-Siyāsa,* op. cit., p. 1074.
61. Ibid., pp. 1074–5.
62. Ibid., p. 1076.
63. Ibid., p. 1074.
64. A. Zaki Saleh, *al-Usūs al-Nafsiyya lil-Ta'līm al-Thānawī*, pp. 401–2, Cairo, al-Nahda al-Misriyya, 1959.
65. For more details on the influence of Avicenna in both East and West, see A. al-Naqib, op. cit., pp. 156–77.

35. Ibn Sīnā, al-Qānūn, Vol. I, p. 150, Cairo, Maṭba'at Būlāq, A.H. 1294.
36. Ibid., p. 151.
37. Ibid., p. 153.
38. Ibn Sīnā, Kitāb al-Siyāsa, op. cit., p. 1034.
39. Ibn Sīnā, al-Qānūn, op. cit., Vol. I, p. 156.
40. Ibid., p. 157.
41. Ibid., p. 158.
42. Ibn Sīnā, Kitāb al-Siyāsa, op. cit., pp. 1074–5.
43. Ibid., p. 1075.
44. Ibid.
45. Ibid., pp. 1075–6.
46. Ibn Sīnā, al-Qānūn, op. cit., Vol. I, p. 159.
47. Z. Yūsuf, 'Mūsīqā Ibn Sīnā', al-Kitāb al-Dhahabī lil-Mahrajān al-Alfī li-Ibn Sīnā, pp. 123–35, Cairo, Maṭba'at Miṣr, 1952.
48. Ibn Sīnā, 'Risālat al-Mūsīqā', Majmū' al-Rasā'il, op. cit., pp. 2–12.
49. Ibn Sīnā, Kitāb al-Siyāsa, op. cit., p. 1075.
50. Ibid.
51. Ibid., p. 1076.
52. Ibn Sīnā, al-Burhān min al-Shifā', op. cit., p. 77.
53. Ibid.
54. Avicenna wrote at length on these sciences in his book Aqsām al-'Ulūm al-'Aqliyya, in Majmū' al-Rasā'il, op. cit.
55. A. Fahmī, Madkhal al-Tarbiya al-Islāmiyya, pp. 149–50, Cairo, Lajnat al-Ta'līf wal-Tarjama wal-Nashr, A.H. 1369.
56. Ibn Sīnā, al-Shifā', op. cit., Vol. II, pp. 562–3.
57. Muqaddima of Ibn Khaldūn, Vol. III, p. 250, Cairo, Maṭba'at Bulāq, A.H. 1350.
58. Ibn Sīnā, Kitāb al-Siyāsa, op. cit., p. 1074.
59. Ibn Sīnā, al-Qānūn, op. cit., Vol. I, p. 167.
60. Ibn Sīnā, Kitāb al-Siyāsa, op. cit., p. 1074.
61. Ibid., pp. 1074–5.
62. Ibid., p. 1075.
63. Ibid., p. 1076.
64. A. Zakī Ṣāliḥ, al-'Ulūm al-Nafsiyya fī Turāth al-Islām, pp. 401–2, Cairo, al-Nahḍa al-Miṣriyya, 1959.
65. For more details on the influence of Avicenna in both East and West, see A. al-Naqīb, op. cit., pp. 156–7.

ANDRÉS BELLO

(1781–1865)

Gregorio Weinberg

Andrés Bello, an exemplary figure in the history of Latin American culture, was one of its most outstanding educators in the nineteenth century and is generally acknowledged to be its greatest humanist. His robust personality and austere, scholarly way of life made him the embodiment of the *maestro*, a Spanish term signifying a person of outstanding merit who is recognized as a supreme example worthy of the highest honours. Andrés Bello epitomized all these qualities: his wide-ranging activities, whose effects have been long-lasting, show his concern both for primary education and particularly higher education, in addition to his work as a grammarian, jurist, philosopher and politician. He was born in Venezuela, but the course of events in Latin America in the early decades of the last century caused him to stay for nearly twenty years in London, from whence he went to Chile. His extensive work and lasting influence have given him international stature and the rare distinction of being a figure to whom all Spanish-speakers lay claim. So great is his authority that even international educational and cultural agreements bear his name.

His life in Venezuela

Andrés Bello was born in Caracas on 29 November 1781. His childhood and youth were spent in relatively comfortable and cultivated surroundings in which, from an early age, he took pleasure in reading. His studies brought him into contact first with French and later English. His formal education was marked by the award on 9 May 1800 of the degree of Bachelor of Arts. But other information relating to that time is perhaps even more significant. A few months earlier he made the acquaintance of a foreigner whose presence in the city had an enormous impact and made an indelible impression on the still young and timid student who approached him. This was Alexander von Humboldt, already renowned for his outstanding work as a naturalist, and above all for the vast range of his scientific inquiries.

To eke out his slender income Bello began tutoring in his own home for a group of adolescents which included Simón Bolívar, who was destined to scale the heights of history. Decades later the scene was to be repeated in Santiago de Chile, when he imparted his knowledge from a desk laden with books on every imaginable subject to other equally inquiring young people, a small band of whom were to assume their place in history. From the testimony of his students over the years we know of his extraordinary educational and human gifts.

Very soon, he improved his financial situation by joining the staff of the colonial administration, where even as a new recruit his hard work, initiative and knowledge of languages made him invaluable for translating the at times alarming news arriving from Europe. Events in the Old World were beginning to impinge on the New, and the most important information was not always conveyed in Spanish, which seems to have been the only language generally understood. During this period his intellectual interests were coming to the fore, and he began writing for the Caracas *Gazeta*, the first newspaper of his native city. Vigorous articles were even at that early stage associating the name of Bello with the first production ventures of the local press. He was the author of the booklet entitled *Calendario manual y guía universal de forastero en Venezuela para el año de 1810* and also of the *Resumen de historia de Venezuela*, in which some critics find traces of Humboldt's ideas.

Bello's first poetic outpourings also date from that time. E. Rodríguez Monegal notes in the poetry of the Caracas period 'the mastery and ease with which the young poet handles the neoclassical style; his application of the humanistic vision of the eighteenth century to the American world, a vision already partaking of a continental view; and in certain passages, unmistakable signs of the direct contemplation of nature, expressed in neoclassical style but with genuine American feeling'. We have here the burgeoning work of the man of letters who throughout his life was to contribute so much to the intellectual emancipation of Latin America – an aspect whose paramount importance cannot be overemphasized.

His duties, experience, background and, as we have said, knowledge of languages, ideally suited him to take part in the mission that the conservative *junta* was sending to London for negotiations, the delegates being Simón Bolívar and Luis López Méndez. A long-standing friendship, despite occasional setbacks, was to link him to his pupil Bolívar. In a letter from Quito dated 27 April 1829, Bolívar wrote to José Fernández Madrid, then in London, expressing his serious concern at

> the wretched financial situation of the legation, which is forcing my worthy friend Bello to leave it to avoid starving. . . . Try to persuade Bello that what is least evil in America is Colombia, and that if he wants to be employed in this country, let him say so and he will be given a good position. His native region should come before everything; and he is worthy of occupying a very important post in it. I know the superior nature of this contemporary of mine from Caracas. He was my teacher, though we were the same age, and I loved and respected him. While his aloofness has kept us apart to some extent, I wish to be reconciled with him and to win him over for Colombia.

The message was sent too late, however, for Bello had already left London for Chile.

Among all the influencing factors of the time, I have sought to focus here only on his relationships with Humboldt and Bolívar, owing to the significant influence they were to exert on his life.

To complete this biographical sketch I refer to two traits of Bello's personality that are not always fully understood. The first is his humanism which, contrary to general belief, has nothing to do with the 'arid scholarship' of the seventeenth century, caught up in Latin of all types and periods and encumbered by imperfectly mastered Greek. The second trait is the conservatism for which he has also been criticized.

To clarify the question of humanism we need go no further than the simple and striking description by Angel Rosenblat: 'Andrés Bello was without doubt the first humanist of our America, a kind of Hispano-American Goethe, at a time when humanism was still the father of science and the humanist was not only philosopher but also historian and poet, jurist and grammarian, and sought to encompass both spiritual life and the mysteries of nature.' To this we may add that Bello was a humanist in the history of his era.

The conservative yet modernizing thought of Bello – poles apart from any idea of traditionalism or opposition to progress – indisputably owes much to his impressions of life in England as compared with events in the Latin-American continent. During his long stay in London, he witnessed a gigantic effort of institutional readjustment to the profound economic and social changes brought about by the agricultural and industrial revolution, which in turn emphasized the importance of science and technology in building the future. Furthermore, he was necessarily much concerned at the role played by Great Britain in the new precarious balance of international relations, which also had its effect on the course of events in the New World.

Constantly concerned with the destiny of Latin America, torn apart and impoverished by prolonged civil wars that were beginning to threaten its very survival, Bello must have seen the unique British experiment as providing a possible formula for new states to channel teeming energies and harness them to their own interests. It was therefore his view that the aim should not be to overthrow an order that was threatened but rather to restore it as soon as possible, making use of education, legislation and trade as the best instruments for that purpose. His ideas were of course not always shared by many of his contemporaries, who opposed him fiercely yet respectfully. What was at issue were different philosophies of history and life. The subsequent course of events shows, however, that his contribution can be deemed to have been of exceptional value. In any case, we do not believe that these were the decisive factors in making him famous; his fame stems deservedly from his natural genius, and is founded upon his vast and enduring written work and his personal prestige and influence.

His life in England

When he landed at Portsmouth on 11 July 1810, Andrés Bello, who came, as we have just seen, as an attaché with the mission headed by Simón Bolívar and Luis López Méndez, could never have imagined that circumstances would force him to remain in Great Britain for nearly two decades, a period marked by discouragement and financial hardship but also filled with stimuli for the maturing of his talent. Vicente Llorens Castillo, in *Liberales y románticos: una emigración española en Inglaterra*, provides a well-documented account of the life of the liberal émigrés from the Iberian peninsula at that time, who were condemned to long years of 'poverty and obscurity, hopes and disappointments'. This was also certainly true of the many Latin Americans who, like Bello, faced a similar situation, their ties with their native land severed by fate, without resources and submerged by an uncertain future that was to be made even more threatening by the constitution of restoration movements. However, from the intellectual point of view – setting aside the suspicions that undermined any community feeling among all those uprooted persons – the climate proved stimulating and fertile for those who were willing, and sufficiently humble, to undergo a difficult political and cultural learning process in another environment and another language. The number of gifted and important people in that situation was becoming considerable, and Bello was to establish lasting ties with many of them, as is borne out by numerous direct or indirect testimonies that have come down to us. He came to know Francisco de Miranda, José de San Martín, José María Blanco White, Bartolomé José Gallardo, Antonio José de Irisarri, Servando Teresa de Mier, José Joaquín de Olmedo, Vicente Rocafuerte and a great many others the mere mention of whose names is highly evocative.

In the publication *Cartas a Bello en Londres, 1810–1829*, by Sergio Fernández Larraín, there are some interesting and, at times, moving testimonies from that period. We also know of Bello's relations with James Mill, who at one point was able to help Bello financially by entrusting him with the difficult task of deciphering the manuscripts of Bentham. The homesick Bello was certainly not able to subsist on the meagre and very irregular payments he received as secretary to some Latin American diplomatic missions or as a subsidy from particular countries (for example, the Argentine Government sent him £150 on one occasion with a promise to repeat the payment annually, which subsequent events prevented it from keeping). He eked out his scant income with private lessons or editing work (he once revised a Spanish version of the Bible), but the sum of his resources barely provided him with the decencies of life.

In any case, he lived with intensity at a very special time in the transformation of the Old World, and above all of Great Britain. In the brief space available it is only possible to list summarily a number of factors, protagonists and events of varying importance which coincided with Bello's stay in London. These included news of the fluctuating fortunes of the emancipation movement in Latin America, declarations of independence, restorations, the Battle of Ayacucho, the Congress of Panamá and the recognition of some countries by the United States. In Europe there were the Congress of Vienna, romanticism, and more particularly in Great Britain, whose population had by then topped the 20 million mark, there was the production of 8 million tons of coal per year and a merchant fleet of some 2.5 million tons which already included steamships. The metallurgical and textile industries were expanding at an unprecedented rate; and the industrialization process necessarily began to extend to the press. Within a few years there was a spate of daily newspapers and reviews with increased print runs and lower prices, such as *The Times*, the *Manchester Guardian*, the *Sunday Times*, the *Evening Standard* and the *Westminster Review*. London became the first city of over a million inhabitants, and from 1812 onwards astonished Londoners and foreigners alike saw its streets become safer thoroughfares as a result of that marvel of marvels – gas lighting. Authors, ideas and books were discussed; Humboldt, the young genius whom Bello had known in Caracas, Goethe, Byron, Shelley, Malthus and Ricardo were news; the issues of authority, democracy and liberalism were debated; news from the Continent suggested that the principle of nationality was prevailing over that of legitimacy.

Despite the difficulties involved, and without disregarding the events great and small taking place around him, Bello set to work single-handed or with a few assistants on lofty cultural undertakings which have left a lasting mark. With Juan García del Río he produced the *Biblioteca Americana* (1823), which constituted, in the words of Rafael Caldera in the Foreword to the facsimile reprint used by the present author, 'the first and most ambitious "eminently American" cultural work ever embarked upon from Europe'. Brought out by a small group of people educated in the New World, it was intended for all the peoples of America with the aim of contributing to 'dissemination of the true and sound benefits arising from enlightenment and rational freedom'. A quick perusal suffices to establish the broad spectrum of the concerns of its valiant editors: literature, the arts, science, techniques, historical material, and so forth, and the words we have cited are an adequate reflection of the spirit underlying an enterprise that was little short of heroic. The first instalment was headed by the 'Alocución a la poesía' (Address to Poetry), by Bello himself, which features today in all anthologies. A variety of other articles included 'El repertorio americano' (The American Directory) of 1826–27. One notes with admiration that, despite the struggle to earn his living, Bello was always willing to give much of his time to activities directly or indirectly connected with the intellectual emancipation of the New World. Against this background, and this is perhaps one of his outstanding traits, he lived with intensity in an atmosphere of ferment in which ideas and initiatives germinated, and investigations and discoveries were disseminated. Here he formed his personality, accumulated an impressive stock of knowledge, improved his methods, sharpened his sensibility, discovered, prepared and dreamt. Possessing a profound interior life, he felt that he was gradually building up an innermost store of wisdom, at once vigorous and refined, on which he might one day draw in the service of his country.

A brief reference to some of the many components of his substantial culture should include his interest in English empirical and utilitarian thought: also in the radicalism that he came to know during his long stay by the banks of the Thames, not only through his frequent visits as an avid reader to the British Museum and from periodicals, but also, above all, directly through his relations with such thinkers as James Mill. Those schools of thought were little known at the time among Latin Americans, whose philosophical interests had shifted, almost imperceptibly, from enlightenment to ideology, while retaining a backdrop of traditional thinking. These relations may partly explain his lasting interest in the physical and natural sciences, topical subjects due to the dynamic spread of the agricultural and industrial revolution which was bringing about major changes in the living conditions and habits of town- and country-dwellers alike. These changes may well have stimulated him later to write his *Cosmografía* and numerous articles such as those collected together in Volume XX of his *Obras completas*; also some very early articles showing his enthusiastic interest in the work of Humboldt, which was to be lifelong, published in the *Repertorio americano*. Bello subsequently contributed many articles to *El Araucano* (see the issues of 16 and 30 August 1831 and 21 January 1832). In one of these he observes, for instance, that 'a course of physics is essential in order to round off preparatory education, because without any notions of what nature is, previously acquired knowledge amounts to very little'. Incidentally, it is my view that Bello's scientific interests constitute a relatively neglected but crucial aspect for a full understanding of his education and the significance of his educational activity. And of course these philosophical influences, together with others such as the Eclectic and Scottish schools, are present in his *Filosofía del entendimiento* on which we cannot dwell here. Suffice it to recall the authoritative opinion of José Gaos that 'it is without doubt the most important work of its kind in American literature'.

Up to that period the uncertainty of his situation was like a leitmotif which followed him as inexorably as his own shadow. He made repeated attempts to return to the New World, with representations to authorities and friends in Río de la Plata and New Granada, explaining his hardships and difficulties; but for many years it was all to no avail. His relations with Mariano de Egaña, slow to develop because of some initial misunderstandings, eventually became a sincere friendship. Convinced of the potential benefits to Chile of a man of the capacity and experience of the humble legation secretary, de Egaña proposed to the Ministry of Foreign Affairs of his country that Bello be given an appointment.

Once his transfer to South America had been agreed upon, Bello prepared to leave for his new post in a country in which he had never lived. His mixed feelings are admirably expressed in a fragment of a letter written on the eve of his departure and cited by Rodríguez Monegal: 'I am impatiently awaiting daybreak and my departure from this city, which is hateful to me on so many scores and on so many others worthy of my love.'

After the long sea crossing he reached Santiago, accompanied by his family and belongings, of which books formed the bulk. At close on 50 years of age, Bello was beginning a new life.

His life in Chile

When Andrés Bello arrived at Valparaíso from Europe on 25 June 1829 Chile was at a critical juncture of its history, with far-reaching changes in its socio-economic, political and institutional structures, in addition to substantial modifications on the cultural and educational level. Major expansion was then taking place in the mining industry, which was energizing the economy. This unhoped-for wealth helped to restore a climate of greater stability, which soon resulted in a fresh balance between the various interest groups, both rural and commercial. The Battle of Lircay completed a cycle of events: with the liberals (*pipiolos*) defeated by the conservatives (*pelucones*), General Joaquín Prieto came to power, appointing Diego Portales as chief minister with a programme basically involving the restoration of law and order. The centralist 1833 Constitution, based on limited suffrage, was a marked departure from the previous more democratic one. It favoured the traditional conservative sectors but, as already noted, its rigour was also of benefit to all the productive sectors, since the advent of an authoritarian republic on firm presidential lines served to consolidate order, organize public finances and discipline the army, at that time a destabilizing influence.

The successful war against the Peruvian-Bolivian Confederation (initiated by Portales, who was assassinated on the eve of the hostilities) was a new factor helping to strengthen Chile's institutions. Peace ushered in a period of prosperity, and gradually relative liberalization made it possible to modernize institutions in addition to offering a more favourable climate to attract intellectuals and scientists (Andrés Bello, José Joaquín de Mora, Guillermo A. Blest, Leopoldo Sazie, and others). Stability and security attracted many political exiles from various places, but above all from neighbouring countries (Juan García del Río, Juan Carlos Gómez, Domingo F. Sarmiento, Vicente F. López, Juan B. Alberdi, etc.), who played an outstandingly fruitful role in education and journalism. To understand the events that followed, we have to take account of various lines of ideological influence and go back, in the area of education, to the existence of the Instituto Nacional, which dispensed higher vocational education; to the old University of San Felipe, in the last stages of decline; and at the secondary level, to the Liceo, imbued with the liberal spirit of its principal, J. J. de Mora, and the more conservative Colegio de Santiago directed by Andrés Bello. All these produced a stimulating climate for the exiles, a profusion of publications and hotly debated issues, and attempts at intellectual modernization reflected in numerous initiatives.

Briefly, it may be said that the Venezuelan Andrés Bello gradually gravitated into a place of ever-increasing importance in Chilean society. The fact that he was formidably well versed in a variety of disciplines, coupled above all with a very sound education, enabled him to play an outstanding role in political and institutional life, as a senator and senior official at the Ministry of Foreign Affairs. In journalism he distinguished himself as a constant contributor to the combative press of the time, particularly to *El Araucano*. As regards the important field of education and culture, he was Rector of the University and the author of works of lasting and continent-wide value, such as his *Gramática de la lengua castellana destinada al uso de los americanos* [Grammar of the Spanish Language for Latin Americans], *Principios de derecho internacional* [Principles of International Law], *Proyecto de código civil* [Draft Civil Code], and *Filosofía del entendimiento* [The Philosophy of Understanding], to cite only a few basic works from various disciplines, quite apart from his outstanding literary contributions as a critic and creative writer.

The university

In pursuance of Articles 153 and 154 of the 1833 Constitution, and by virtue of the law of 19 November 1842, the University of Chile was founded on centralist lines following the model generally called Napoleonic, that is, as the body responsible for all educational activities at all levels, a kind of ministry of public instruction, or education as we say today. In this way the foundations were laid of the state as educator.

It should be stressed that, elevated to this position, the university became the higher body which established policies and organized institutions. A particular feature of the university was that it did not perform a direct teaching function but was confined to the supervision and appointment of teachers.

The old University of San Felipe was closing down after a long process of decline that it would be out of place to recount here, and it was replaced by the new university, inaugurated in a splendid formal ceremony on 17 September 1843. Contrary to the commonly held view, there was little continuity between the two institutions despite superficial appearances (incorporation of the professors from San Felipe, the presence of its former rector, Juan Francisco Meneses, on the new university council, etc.). A clean break was made, with a fresh start, as can be easily inferred from the functions, organization and objectives of the newly founded university, and above all from the spirit that pervaded it. Andrés Bello, whose participation was decisive in the whole operation, was appointed rector and at the same time a member of the Faculties of Law and Political Sciences and of Philosophy and the Arts.

Of outstanding importance was the inaugural address delivered by Bello at the University of Chile. It contains a statement of much of his ideas on education, particularly higher education, of a lofty wide-ranging theoretical nature to be expected from a humanist of his calibre but, at the same time, revealing his urgent reflection on the social implications and specific problems of the university as he saw it at that time and in that setting, that is, firmly rooted in reality. Some passages can only be fully understood in the light of the contemporary situation, as an implicit response to intuitive concerns and questionings. For example:

> The question is whether universities and literary bodies are suitable instruments for the spreading of enlightenment. I can hardly conceive of any doubt about this, in an age that is, *par excellence,* one of association and representation; in an age marked by the proliferation of societies concerned with agriculture, commerce, industry and public welfare; in an age of representative government. Europe, and the United States of America, our models in so many respects, give us the answer to this question.

He was thus replying to those who, as recalled by Miguel Luis Amunátegui, were at that time still advocates of the strange theory that 'instruction depraves instead of improving the soul, and fosters fanciful and pernicious pretensions, instead of encouraging people to get down to quiet honest work'. Bello goes on:

> If the spread of knowledge is one of the most important prerequisites, because without it the arts would do no more than offer a few scattered points of light in the enshrouding darkness,

> the bodies to which we are mainly indebted for the speed of literary communication are of vital benefit to enlightenment and to mankind as a whole. As soon as a new truth germinates in the mind of a single individual, it becomes the property of the literary community as a whole. The scholars of Germany, France and the United States appreciate its worth, its consequences and its applications. In this dissemination of knowledge, academies and universities all become depositaries continually accumulating all the latest scientific findings, which then spread out more easily from them to reach the various classes of society. The University of Chile has been founded for this special purpose. If it achieves the ends sought by the law that has given it its new form, and fulfils the desires of our government, it will be an outstanding centre of communication and dissemination.

But this foremost concern with higher or university education did not in his view imply any disregard for the primary level:

> I am certainly among those who regard general instruction, the education of the people, as one of the most important and priority purposes to which the government should direct its attention; as a prime and urgent necessity; as the basis of any sound progress; as the essential cement of republican institutions. . . . I do not say that the cultivation of the arts and the sciences necessarily carries in its wake the spread of elementary education; there is however no doubt that the sciences and the arts possess a natural tendency to spread when no artificial obstacles are placed in their path. . . .
>
> But the law, in re-establishing the university, seeks not only to rely on the natural tendency of knowledge to spread, now that the press provides it with unprecedented coverage; the law has also closely linked the two kinds of education, giving one section of the university special responsibility for primary education, supervising its operation, helping to expand it, and contributing to its progress.

Having explained these assumptions and the workings of the proposed new system, he goes on to clarify the basis of his philosophy:

> The university will also study the special features of Chilean society from the economic standpoint, which presents vast problems calling for bold solutions. The university will examine the findings of Chilean statistics and help to compile them, and will use them to interpret our material needs. For in this, as in other branches, the programme of the university is entirely Chilean. If it borrows scientific deductions from Europe, it is in order to apply them in Chile. All the paths along which it is proposed to direct research by its members, and the courses taught, converge on one point, our native land. . . . Similarly, medical science will investigate the specific modifications that give the Chileans their climate, their customs and their diet; it will lay down rules for hygiene and public health; it will seek to identify the secret causes of epidemics and their ravages; and it will do its utmost to ensure that knowledge of simple means of preserving and restoring health spreads throughout the country. There is no need for me to list the positive uses of the mathematical and physical sciences, their applications to a nascent industry barely equipped with a few rudimentary skills, lacking properly understood methods, lacking machines and even the most common tools; their applications to a mineral-bearing land criss-crossed by veins of metal, to a soil rich in plant resources and nutritious substances, to a soil on which science has scarcely yet cast a glance.

However, practical applications should not be confused with 'the gropings of blind empiricism', since only 'general knowledge gives clarity and precision to special knowledge'.

As a humanist, Bello early emphasized the value of the formative disciplines, among which

> the study of our language seems to me to be of the utmost importance. I shall never advocate an excessive purism that condemns anything new in the matter of language. On the contrary, I believe that the great number of new ideas constantly passing from literary usage to general circulation call for new ways of expressing them. . . . Language can be extended and enriched, and it can be adapted to all the needs of society and even those of fashion, which exerts an unquestioned sway over literature without adulterating it, without vitiating its constructions and without violating its intrinsic spirit.

Bello had also previously pointed to the political responsibility of the university in consolidating institutions and in the preliminary remedial action to be taken: 'We must cleanse it of the blemishes it acquired under the evil influence of despotism.'

These few fragments from Bello's historic speech require no further comment but it must be acknowledged that they project something quite distinct from the conventional, mistaken image of a Bello more a friend of the arts than of the sciences, more interested in ideas and theories than in their practical applications, and more concerned with higher than with popular education. Above all, they contrast with the common view of a rigid 'conservative' in matters of language.

If we disregard the historical context in which certain ideas are expressed, we may miss their significance, particularly where they were being embodied in the theoretical panoply of the philosophers of education, and might even at times seem 'natural'.

This is well illustrated in the speech delivered by Diego Barros Arana on the occasion of the fiftieth anniversary of the University of Chile:

> Some believed that, by proclaiming freedom of debate, the University was going to endanger the survival of the traditional ideas that were regarded as the very basis of the social order. Others maintained that the new institution, in imposing its doctrines, was going to clip the wings of thought and become, more or less openly, the mainstay of the old intellectual regime that the political and social revolution of 1810 had not succeeded in modifying. Andrés Bello was at pains to demonstrate that between those extreme tendencies lay a vast field of action for the university, and he set the university movement on the only course then reconcilable with the embryonic state of our intellectual culture. His work was one of initiation, paving the way for firmer and more sustained progress.

Primary education

The interest taken by Bello in elementary education was of long standing. Brief reference may be made to an article cited by J. C. Jobet (*El Araucano*, 5 and 12 August 1836), which we consider illustrates the point very well:

> The right of governments in a matter of such importance can never be excessive. Promoting public institutions for only a small proportion of the population is not promoting education, because it does not suffice to produce competent people for the professions. It is necessary to educate useful citizens and to improve society, and this cannot be done without opening up the field of progress to the bulk of the people. What good would it do us to have orators, jurists

> and statesmen if the great mass of the people live plunged in darkest ignorance, deprived of their due share of trade and wealth, and unable to accede to the well-being which the people are entitled to expect of a state? Failure to pay attention to the most suitable means of educating the people would be tantamount to taking no interest in national prosperity.

This concern, with its broad perspective, was to lead to an extraordinary number of initiatives. To take just one, a competition was held to reward the best work on the following themes: (a) the influence of primary education on customs, public morality, industry and the general development of national prosperity; (b) the way in which it should be organized, in view of the country's needs; and (c) the best funding system to maintain this education. The result of the competition is well known, and has been extensively covered by the present writer. The first prize went to Miguel Luis and Gregorio Victor Amunátegui for their work *De la instrucción primaria: lo que es, lo que debería ser* [Primary Education: What It Is and What It Ought To Be], and the second to Domingo F. Sarmiento for *Educación común* [Education for All], works which greatly influenced the subsequent development of primary education in Chile.

Other educational concerns

Bello did not overlook secondary education. Indeed, he had a very modern conception of it, as evidenced by his warning that it should not be regarded as 'a mere preparation for professional careers or as a means of reaching university, but as an end in itself'.

An exhaustive account of Bello's educational philosophy would require a description of his concern with an education that was South American in character, its linkage with the idea of work, his interest in the content of education and teaching methods, in the conception of textbooks for all levels of the education system and his concern with what we would today call scientific popularization, and so forth. But, above all, there was his notion of education as a right, and its links with production, in order to promote the continuing democratization of society. The following passages put things in a nutshell and speak for themselves:

> Republican governments are no more than the representatives and the agents of the national will. Being obliged as such to follow the trends of that will, they cannot opt out of the responsibility to achieve the grand design of making individuals useful to themselves and others through education. Furthermore, the democratic representative system empowers its members to take a more or less direct part in affairs; and peoples will not be able to progress along the political path unless education becomes sufficiently widespread to give all individuals a true awareness of their obligations and their rights without which it is impossible to discharge the former or to accord to the latter the value which prompts us to concern ourselves with preserving them.

Elsewhere he emphasizes the need to bring education

> within the reach of all young people, whatever their circumstances and way of life; to encourage them to acquire it; and to facilitate its acquisition by increasing the number of institutions and by standardizing methods, as effective means of giving to education the impetus most conducive to national prosperity.

Angel Rosenblat writes that 'for Bello, language is the instrument of cultural training'. This explains the role ascribed by the author of 'Alocución a la poesía' to the teaching of language at all levels of the education system. When Bello proposed the creation of a chair of Spanish grammar distinct from the existing chair of Latin grammar, he was taking a rationalist stand against those who, while considering it legitimate to study the language of Virgil, were opposed to the same being done for that of Cervantes, arguing that the mother-tongue was learnt 'naturally', thus precluding the need for rules and norms. Studying and memorizing Latin did not suffice, in Bello's view at least, to consolidate a good modern education. But giving autonomy to the teaching of Spanish and legislating for the use of new scientific methods to replace the old 'natural' or routine ones, he secured for Spanish that flexibility and grace which it could not otherwise have attained through continued subjection to Latin, or by being 'left to its own devices'. Bello's ideas on the subject helped to emancipate the Latin American medium of communication. We should remember, however, that emancipation to him implied not a break but a retrieval, on another plane, of a creative continuity. His *Gramática*, which was then more advanced than that of the Academy itself, adequately illustrates this view. It would not be appropriate to pursue the matter here, or to consider such themes as his lifelong concern for the risk of the linguistic fragmentation of Spanish, or to dwell on his very extensive work as a philologist, grammarian and critic (contained in several volumes of his *Obras completas*), all of which work is well known and has been aptly studied at length by generations of specialists.

Nor is it appropriate to deal here with Bello's substantial contributions in the field of law, a full understanding of which requires them to be related to his conception of the world and of culture. In this regard his juridical work served, as recalled by P. Lira Urquieta, to give

> a modern appearance to the notions of authority and order which were still expressed in verbose colonial language. Without breaking with tradition, he instilled a love of progress and carried it forward with a measured step. He helped to institute respect for the law, giving the country that political stability without which all other action is enfeebled or comes to an end.

The profound political significance of his ideas is already to be noted in some of his early works, which otherwise might seem of limited interest. In 1830, on the subject of public trials, he rapidly proceeds to a statement of general principles:

> The lack of harmony between new institutions and old establishments means that any complication will worsen our situation by the mere fact of substituting one system for another; that the best remedy for the ailments of a constitution which has not yet had time to become consolidated is to maintain it at all costs, improve it gradually and, above all, make room in it for the other parts of our political organization.

We clearly have here – to quote once more P. Lira Urquieta – 'in embryo, the main lines of the conception of Portales: to establish a strong government in Chile which will be a kind of prolongation of a monarchy, but with a republican form.'

Much could be also be said about Bello's historical ideas, repeatedly set forth in numerous works and often confronted with those of his disciples José Victorino

Latarria and Francisco Bilbao, to whom social romanticism held out new horizons. Any addition to the various aspects covered above, such as his participation in the controversies of the age (on romanticism, language and spelling), some of them memorable on account both of the persons involved and the level of theory attained, would divert us from the essential purpose of this biographical sketch, which is to show the role played by the educational ideas of Bello in his time.

Andrés Bello died in Santiago de Chile on 15 October 1865.

Andrés Bello's writings on education

We are fortunate in having available a remarkable critical edition of the *Obras completas de Andrés Bello* [The Complete Works of Andrés Bello] published by the Venezuelan Ministry of Education in 1952 and undertaken subsequently by the Fondación Casa de Bello. Volume XVIII, *Temas educacionales* [Educational Themes] (Caracas, 1981) consists of two parts, with an introduction by Luis B. Prieto Figueroa.

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BRUNO BETTELHEIM

(1903–90)

Karen Zelan

Bruno Bettelheim, eminent scholar and educator, directed the University of Chicago's Orthogenic School for nearly thirty years. He published sixteen books and numerous scholarly papers and essays. The main thrust of his writing was his application of psychoanalytic principles to problems in education, in society, and in the family. He also devoted several works to reinterpreting psychoanalysis in light of his formative years in Vienna, and under the impact of his admired mentors and colleagues: educator and philosopher John Dewey; and psychoanalysts August Aichhorn, Anna Freud, Erik Erikson, and Sigmund Freud himself.

Psychoanalytic applications: the Orthogenic School

Many of Bettelheim's publications dealt with his modifications of psychoanalysis to fit the milieu he created for severely disturbed children at the Orthogenic School, one of the University of Chicago's laboratory schools. An example of the university's dedication to renovating primary and secondary education, Bettelheim's treatment milieu was strongly influenced by the ideas of John Dewey. Bettelheim combined his interest in reshaping psychoanalysis with the inventive, inquiring spirit that permeated the university's Department of Education and the University of Chicago as a whole.

Dewey's works (1965) in combination with psychoanalytic works provided the theory. But August Aichhorn was probably Bettelheim's greatest inspiration in fashioning the Orthogenic School. Aichhorn (1965) wrote that the problems of 'dissocial' youngsters could only be remedied by taking them out of the home environment, which had precipitated the antisocial behaviour, and putting them in a training school. Similarly, Bettelheim (1950, 1955, 1967, 1974) wrote at length that severely disturbed children must be removed from the environment that fostered their symptoms and housed in an especially designed treatment milieu based on psychoanalytic principles. Although psychoanalysis proper could not be applied to every waking moment, Bettelheim thoroughly described an orderly institutional structure that combined an observational approach with a psychoanalytic interpretation of events.

Foremost was Bettelheim's idea that, because the child had suffered anguish at being unable to sustain himself in the family, he needed 'central persons' in his life at the school. These important persons were to be nurturing, observing and interpreting: the heart of the child's existence. Speaking psychoanalytically, one might say that the mainstays of the child's life (counsellors and teachers) functioned as ego supports to these extraordinarily needy young people whose ego functioning had lapsed, often for years, before they were admitted to the Orthogenic School.

Bettelheim functioned as a sort of superego. He expected every child to work hard to solve his or her problems. He oversaw the institution as a whole, for example, by making rounds every evening as the children were put to bed and by conducting daily staff meetings where he not only searched a child's behaviour for meaning but also brilliantly instructed the child's 'central persons'. Staff discussions, then, became the forum for influencing the pivot around which the child's experience revolved.

If dream interpretation is the royal road to the unconscious, psychoanalysis, in Bettelheim's view, is the royal road to educational reform. Sigmund Freud (1965) could not have agreed more. In his foreword to Aichhorn's (1965) work, Freud wrote:

> Of all the fields in which psychoanalysis has been applied none has aroused so much interest, inspired so much hope, and accordingly attracted so many capable workers as the theory and practice of child training. . . . The child has become the main object of psychoanalytic research and in this respect has replaced the neurotic with whom the work began. . . . It is no wonder that expectation was aroused that psychoanalytic work would prove valuable in education, the purpose of which is to guide the child on his way to maturity, to encourage him, and to protect him from taking the wrong path.[1]

Freud went on to say that educators do not necessarily have Aichhorn's intuitive gift. Thus, they should be psychoanalytically trained because 'otherwise the child, the object of [the psychoanalyst's] effort, remains an inaccessible enigma to him.' Freud echoed one of Johann Pestalozzi's critics (quoted in Gross, 1963) who wrote that if intuitive gifts, or 'love' for the child, are the essence of education, everything depends on the intuitive wisdom of individual teachers. Therefore, method became important in the training of those not so intuitively gifted. Bettelheim put Freud's advice into practice at the Orthogenic School by helping to educate the child through educating his care-takers (Bettelheim, 1974).

Educating children at the Orthogenic School

Among the best known of Bettelheim's works describing his novel approaches to the treatment of severely disturbed youngsters is his first book, *Love Is Not Enough* (1950). In the chapter entitled 'The Challenge of Learning', Bettelheim discussed at length how the children were educated at the Orthogenic School. He borrowed and reworked ideas not just from John Dewey but also from Maria Montessori. He recognized that sensory experience as a precursor to intellectual learning was particularly important in the education of autistic young people (Bettelheim, 1962). At this time he also began to use Jean Piaget's work to mark the child's developmental progress and to theorize how Piaget's ideas on the child's developing mind could be transformed into classroom practice at the Orthogenic School (Bettelheim, 1967).

True to Dewey's thesis that 'education' and 'experience' comingle in the child's formative years Bettelheim described how the children at the school, who had a past history of aversive reactions to learning, often welcomed learning when it was based on personal experiences (Bettelheim, 1950). He wrote that the study of nature provides an arena within which the children can begin the learning enterprise because it does not suggest to a troubled child that he must learn about family secrets. Nor does he face the Pandora's box of learning to read, which implies to the child that he must learn about everything – especially the facts that troubled children do not want to understand. Bettelheim explained:

> The psychological reason seems to be that every child grew familiar with certain aspects of nature long before he ever knew about complicated family relations or family secrets and became afraid of understanding what they were like; long, too, before he knew of reading as a means of acquiring knowledge. Moreover, nature does not demand comprehension of what seems to the beginning reader to be the magic connotations of symbols, such as words. The child thinks that if he studies nature, he will understand only nature. Whereas if he learns to read, he fears he will learn to understand everything, including that which he thinks he is not supposed to understand.[2]

Observing the Orthogenic School's children in the learning environment taught Bettelheim that atypical children, because of their exaggerated behaviours, teach us how normal children learn. His premise was that if educators can reach troubled youth by adjustments in the curriculum and in teaching methods, educators can refine their procedures regarding normal children (Bettelheim, 1950; Bettelheim and Zelan, 1982). While the normal child usually complies, the atypical child protests. It is from these outright protests, Bettelheim believed, that we can learn better ways of reaching all schoolchildren.

Like Pestalozzi (quoted by Gross, 1963) and Montessori (1967), Bettelheim (1950) realized that the curriculum and special teaching methods were of little use 'unless the child himself is convinced he ought to learn for his own good'.[3] As Maria Montessori wrote, it is not that a child believes what he sees, but he sees what he believes (Röhrs, 1982). This meant to Bettelheim and to many others, notably Jean Piaget (1972), that a child is not open to learning ('seeing') without a firm conviction that what he will learn will mesh with his previously formed predilections ('believing'). But, being psychoanalytically oriented, Bettelheim was not content to leave it at that. He counselled educators to understand that troubled young people have a reason for not learning, and that their learning protests are ineffective 'even when viewed from what [the child] feels are his own interests'.[4] While he did advise us to apply what we discovered about atypical learners to normal learners, he also differentiated between the teaching of atypical and typical learners. Education should be based on the atypical child's experience, but progressively so, necessitated by the symptomatic learner's initial inability to structure his own experience.

Bettelheim (1950) illustrated the importance of a child's educational experience in the dramatic account of 'George', an extremely angry boy who spontaneously developed and used a symbolic system (letters, numbers) to express his rage. But George, in the Orthogenic School classroom, was prone to regressive episodes. Regressive modes of functioning were discouraged in class. While the child might need to regress in other situations (in therapy, in dormitory life), Bettelheim hoped that the classroom would bring out and develop the child's most mature strivings. None the less, many children resisted school learning because it implied that they had to 'grow up', about which they were very ambivalent.

George was one of those children. He needed his science teacher's help to structure his learning. Prompted by his teacher, he devised an ingenious way of combining his regressive tendencies with a reaching for maturity. George originally wanted to shun growing up by sucking milk bottles during class, which represented a return to infancy. At the suggestion of his teacher, he constructed an elaborate siphoning system connecting bottles with rubber tubing so that by blowing or sucking at one end he was able to force liquids through the various bottles and tubes. Rigging up this elaborate device was enough to sustain him in class without reverting to sucking real milk from real bottles. Through sublimation of his needs, which were directly connected to the learning experience, he could wait to suck milk until lunchtime, when he punched a hole in his milk carton, stuck a straw in the hole, and began to drink the milk through the straw as any normal youngster would.

Bettelheim (1950) felt so strongly that the education of severely troubled children was critical in their recovery that he concluded his chapter, 'The Challenge of Learning', by writing that the treatment of a disturbed child in a milieu setting cannot be complete unless the child not only succeeds in the classroom, but also wants to learn on his own and *enjoys* learning.

Psychoanalytic applications: family life

Bettelheim's first attempt to reach the parents of normal children and to deal with typical family child-rearing problems resulted in his 1962 book, *Dialogues with Mothers*. He used psychoanalytic theory, especially the refinements of the theory he had implemented at the Orthogenic School over two decades, to illuminate common childhood enigmas. Similar to Benjamin Spock, whose famous child-rearing book, *Baby and Child Care* (1946), preceded Bettelheim's *Dialogues* by sixteen years, Bettelheim concentrated on parent/child interactions. He contrasted the old child-rearing with the new, which was, in part, the result of Spock's work. Bettelheim (1962) wrote that the difference between the new and the old lay in the fact that today's parents have not recognized the contradiction in their affording the child individual freedom at the same time that the parents want the child to reach the goals they have set for him. By way of contrast, child-rearing theory prior to the 1950s and 1960s dictated that a child must adhere to a strict discipline. 'Nowadays we want our children to make their own decisions, but we expect those decisions to please us. Life was much easier for my parents: they knew what a child was supposed to do, and he had jolly well better do it.'[5]

The essence of the treatment milieu he created for troubled youth thus became the message to normal parents of normal children. Most important is the recognition of the child's strengths. He felt that parents focused much too much on children's problems without giving them credit for their intelligence in creating those problems. A two-year-old might, for example, react to the birth of a sibling by trying to change his or her identity or the identity of the entire family. Whatever the reasons behind such wish-fulfilments, Bettelheim centred his group of mothers on the contradiction in the parents' thinking that suggested that a child could develop a complex structure to alleviate its anxieties but did not have the wherewithal to understand it. Similarly, in his writings about the Orthogenic School, Bettelheim (1950, 1967, 1974) repeatedly stated that the child's intelligence helped to create its symptoms; therefore, we should use the child's intelligence to help resolve them.

Bettelheim continued with the family theme in his book, *A Good Enough Parent* (Bettelheim, 1987*a*). He described typical impediments to productive parent/child relationships, autobiographically borrowing from his own upbringing, and deftly advancing selected psychoanalytic principles he hoped would harmonize parent/child interactions. Among other themes, he chose to write about the important theme for modern American parents, namely, the difference between discipline and punishment. His view of discipline was based, in part, on the dictionary definition which reveals the word's origin in 'disciple', meaning 'student'. Bettelheim wrote that proper discipline educates the child and sets his energies free to develop productively on his own. This, then, has the happy effect of bettering parent/child relationships. Punishment, on the other hand, 'doesn't work,' according to Bettelheim. 'There is a world of difference between acquiring discipline by identification with those one admires [the parents] and having regimentation imposed on one – or sometimes painfully inflicted. . . . As for punishment, it may restrain the child, but it doesn't teach him self-discipline. . . .'[6]

He observed that children cannot be deceived, and that they pay attention to our behaviour as much as, or more than, our words. He wrote that punitive parents who are carried away by emotions rather than choosing to educate the child deceive only themselves and not the child.

The meaning of play is a second important theme discussed by Bettelheim (1967) in his parenting book. Like Piaget (1962, 1969), Bettelheim viewed the playing child as attempting to bridge his inner reality and the world around him. In early childhood, play is the primary modality within which children develop themselves and communicate with others. Quoting Montaigne, Bettelheim wrote, 'Children's play should be regarded as their most serious actions.'[7] Play is an outlet for emotional expression, but it also serves to resolve conflicts and enables the child to cope better with the world. While Piaget documented the intellectual aspects of playing, Bettelheim's psychoanalytic perspective focused on the emotional and social benefits of play, especially those which accrue to a healthy parent/child relationship. He viewed the child's play as nothing less than the route to identity. Drawing on Freud's insights, Bettelheim wrote that play is the means by which 'the child accomplishes his first great cultural and psychological achievements. . . . This is true even for an infant whose play consists of nothing more than smiling at his mother as she smiles at him.'[8]

Bettelheim, who had been immersed in the history of ideas at least since adolescence, welcomed the idea that a child's spontaneous, playful activity was analogous to the great cultural achievements of our time. He enjoyed, rightly so, elevating the minutiae of the child's behaviour to the heights it deserved.

In *The Uses of Enchantment* (1976), his prize-winning treatise on the use of fairy tales in the child's upbringing, Bettelheim poignantly described how the child's imagination is served by romantic stories, especially those told to the child and, in the telling, elaborated by the child's freely created variations. Again, Bettelheim emphasized the collaboration of parent and child in sharing fairy tales to enhance the child's developing sensibilities. The child needs not only those coping skills that are fostered by didactic parents, but also a moral education communicated not through abstract (ethical) concepts but through fairy tales that deal with what is tangibly right and therefore meaningful. He likened the child's understanding of fairy tales to the psychological insights gained long ago by poets. The German poet Schiller wrote: 'Deeper meaning resides in the fairy tales told to me in my childhood than in the truth that is taught by life.'[9]

As in so many of his works, the foundation for Bettelheim's thesis that fairy tales foster the child's developing mind and provide a forum for emotional expression rested primarily on the application of psychoanalysis to childhood education. True to the subject, Bettelheim whimsically discussed some of the most difficult psychoanalytic concepts in clear, amusing and fanciful language, rendering his thesis accessible to contemporary parents. Conspicuously Oedipal themes in fairy tales are brought forth for the reader to consider. The power of Bettelheim's writing resides in his ability to illuminate concepts that are obvious to psychoanalysts but remain obscure to parents without explication. A little girl's conflict with her mother is narrated in *Cinderella* by the device of having the child's mother portrayed as the wicked stepmother. Such a theme resonates with a girl's feeling of helplessness which is then overcome by the 'good mother', the fairy godmother, who rescues Cinderella and supports her in her aspirations to meet the prince. Bettelheim also highlighted the importance of sibling rivalry in the family and in the Cinderella story, which depicts beautiful but shy Cinderella helpless at the hands of her stepsisters. This, too, is resolved by the rescuing fairy godmother, a resolution which every little girl deeply appreciates. Bettelheim hoped that as parent and child together understood the deeper meaning of these stories, they would bond in mutual enjoyment.

Psychoanalytic applications: social problems

Bruno Bettelheim wrote a number of papers and books applying psychoanalysis to social problems. In *The Informed Heart* (1960), he used his personal experiences in Nazi concentration camps to pose questions about man's autonomy in mass societies. Speaking of civilization's progress in providing us with more freedom than in earlier times, Bettelheim (1960) wrote in his Preface:

> With so much at hand that generations have striven for, how bewildering that the meaning of life should evade us. Freedoms we have, broader than ever before. But more than ever before most of us yearn for a self-realization that eludes us, while we abide restless in the midst of plenty. As we achieve freedom, we are frightened by social forces that seem to suffocate us, seem to move in on us from all parts of an ever-contracting world.[10]

To combat the unpredictable outcomes of our fast-changing world, Bettelheim wrote that we can no longer afford to bifurcate the reasons of the heart from the reasons of the mind. 'The daring heart must invade reason with its own living warmth, even if the symmetry of reason must give way to admit love and the pulsation of life.'[11] Bettelheim never lost sight of the importance of feeling. Exquisitely educated in the history of reason, his life's work consisted of advising us to inform pure reason with the emotions, which is the very substance of a humanistic psychology.

Psychoanalysis was the inspiration for Bettelheim's survival strategies to escape death in the camps and his anchor in writing *The Informed Heart.* He shares with his readers the way he secretly observed the Nazis at work, memorizing countless incidents and speculating on the motivation of the prison guards. In taking mental notes about the process of personality breakdown he was observing in prisoners, Bettelheim saved his own mind. This is because his mind's function silently counteracted the regime's attempts to break it down and to render his personality conformist. Years later, he turned Nazism on its head by creating the Orthogenic School. In the camps, people's personalities were shaped in such a way as to turn them into robots. At the Orthogenic School, life was structured in every detail to promote the child's reach for autonomy (Bettelheim, 1974). From his own traumatic experiences in the camps, Bettelheim understood the power of social structure in influencing personality development and would not rest until he undid those events in Orthogenic School life, which represented, for him, a personal metamorphosis from depersonalization to renewed self-actualization. Just as important, his Orthogenic School venture benefited the children by taking them out of psychological limbo and resuscitating their inner selves so they could return to society.

Bettelheim had been thinking about prejudice for a number of years before he published *The Informed Heart.* In 1964, in a book co-authored with the sociologist, Morris Janowitz, Bettelheim theorized about the virulence of prejudice in modern society. His contribution to the work consisted of reminding the reader that an individual's childhood experiences would affect his attempts to deal with life's vicissitudes, such as military call-up. Bettelheim's thesis was that the more secure the ego, the less the need maliciously to identify another ethnic group as evil in order to shore up the sense of self. To quote from Bettelheim and Janowitz (1964):

> It should be stressed that the comparison of objective army experiences and their subjective evaluation has shown that objective reality seemed comparatively less important in shaping interethnic attitudes than the personal frame of reference within which objective reality is experienced. [Some] were relatively free of fear and found it possible to be optimistic even in adverse circumstances (combat, threat of depression). Such optimism and the self-confidence and self-respect which go with it, as well as *the parallel ability to control hostility,* all originate in fortunate childhood experiences [My italics].[12]

Bettelheim's view was that the individual's inner control of hostility was the key to interethnic harmony, while projecting hostility onto other social groups created the prejudicial attitude upon which the Nazi concentration camps were formed.

Having turned to psychoanalytic theory to explain the sociocultural problems arising from Hitler's European takeover, he later focused his attention on the social problems in modern American schools. In a 1966 paper, anticipating what he was to write later (Bettelheim and Zelan, 1982), Bettelheim wrote about violence as a neglected mode of behaviour. He bade educators pay attention to violence and aggression, which, Bettelheim argued, were conspicuously observable in today's youth. He recommended that primers address the child's violent impulses and that stories depict ways to deal with it. In *On Learning to Read*, he made plain how school personnel and school boards foster a reading curriculum that does not match the schoolchildren's predilections or their natural development. Bettelheim described how 'empty texts' evolve at the hands of school boards who pressure publishers to publish only those texts that will not offend parents. For example, a story about a dying pet is unacceptable because it might enrage animal enthusiasts. This creates a colossal social problem when schoolchildren who are unengaged are referred for special services because of alleged disabilities. The real problem, Bettelheim (1982) wrote, is the schoolchild's boredom with the curriculum. Despite the inane material children are supposed to read, many of them spontaneously put meaning back into the reading texts, efforts that go unrecognized by school staff. Bettelheim and Zelan found that bored children, through 'misreadings', create story fragments that appeal to them and enable them to read for meaning, though they may miss a few words for psychological reasons.

By way of contrast, Bettelheim (1982) presented to the American public some of the stories given to European schoolchildren. These stories are carefully geared to the child's life experiences, mirroring actual annual events so that a child entering school in autumn might read about the beginning of school, a child anticipating upcoming holidays might be given a story about festivities, or a child might be given poems that deal with the universal growing-up issues from the child's viewpoint. About a child's need to be satisfied by her busy mother, Bettelheim quoted from a story in an Austrian primer called, *Mami, Please!*

> 'Mami, please, a piece of bread!'
> 'Yes.'
> 'Mami, please, read me a story.'
> 'Later.'
> 'Why later?'
> 'Listen! Don't you hear anything?'

'Mami, please wash us!'
'Mami, please polish us!'
'Mami, please mend us! . . . '
'That's how it goes all day.'
'Jug, come, we'll help Mother.
The two of us will go and fetch milk.'[13]

Explaining the text to American readers, Bettelheim noted that a child cannot be expected to go hungry but occasionally must wait to be read to. Then the child experiences an inner-directed impulse to read to herself, since she realizes that she cannot always count on her mother's instant availability. The story also implies that a child has the resources to provide herself with comforting and potentially educational experiences.

Bettelheim wrote next that this primer story calls upon the child to observe her mother's behaviour, which releases the child from feelings of rejection as she observes the true reasons for her mother's actions. The little story's *dénouement* is that a caring mother, who describes to her child what goes on all day, will suggest to her how together they might help each other with the day's work. All of this in an Austrian primer which not only creates enjoyment in the child as she reads but also strengthens her understanding of the mother/daughter relationship!

Psychoanalysis reinterpreted

Bettelheim's contribution to a re-examination of psychoanalytic concepts arose from his ingenious and original reworkings of psychoanalytic orthodoxy to fit the symptoms of the heretofore 'untreatable' youngsters who comprised the Orthogenic School population. The works directly related to the school's functioning, mentioned earlier, led to a proliferation and expansion of ideas which culminated in *Symbolic Wounds* (1954) and *The Empty Fortress* (1967). Based on observations of the young people at the Orthogenic School, Bettelheim (1954) took classical psychoanalysis to task for failing to recognize that males are just as envious of females as females are of males. He was referring to the 'penis envy' concept applied to female development, which he felt did not include the envious feelings of males toward females. Studying the spontaneous puberty rites originated by the adolescents at the school, he noted:

> We are hardly in need of proof that men stand in awe of the procreative power of women, that they wish to participate in it, and both emotions are readily found in Western society. As a matter of fact, some poets find these emotions the source of some of the highest achievements of the Western mind. . . . My own purpose was to show that some preliterate societies, far from being inferior to us in this respect, made the spontaneous move from the negative experience of fear to the positive experience of mastering it – by trying to make women's power their own.[14]

The link between his reflecting on the children at the Orthogenic School and on individuals in preliterate societies was his conviction that neither schizophrenic youngsters nor preliterate individuals were primitive; on the contrary, both groups, unlike 'normal' Western adults where emotions may be carefully hidden, found ingenious ways to express their emotions and try to make peace with them.

Bettelheim (1954) described a spontaneous 'initiation rite' that began innocuously enough in a group of adolescents who were planning their adult lives. The 'rites' developed when two Orthogenic School girls began to menstruate, which aroused the interest of two or three of their male peers. While they were eager to plan their adult lives, they were extremely ambivalent about the growing-up process implied by the onset of the girls' menses. The youngsters imagined that becoming actors or entertainers would admit them to the fascinating world of Hollywood and to the world in general. Thereupon, they formed a secret society which would protect them from adult criticism. Their ritual was for the boys to cut themselves on the index finger every month and mix their blood with that of the menses. At this point, Bettelheim wrote, it was necessary for adults to intervene to protect the children from injury.

Bettelheim believed that these inventive, talented young people could more openly address their adolescent ambivalences than normal youngsters primarily because they were in residential placement with all the safety and security it provides. But they also were not as bound as 'normal' youngsters to keep their feelings secret. Quoting Fenichel (1945), who wrote that 'in schizophrenia, the unconscious is conscious',[15] Bettelheim noted that this is particularly true of schizophrenic young people.

In titling his book *Symbolic Wounds,* Bettelheim placed the emphasis on the word 'symbolic', explaining that the actual events, though important, were not as important as the symbolic meaning the youngsters attributed to them. He again took the humanistic stance that there is no sharp distinction between the emotions of schizophrenic youngsters and those of normal children, just as there is no clear-cut distinction between the emotions of preliterate peoples and modern Western adults. The differences reside in the manner in which the emotions are expressed; disturbed youngsters are more conspicuously active in expressing their fears than normal children. The same can be said for the differences between preliterate society and modern society; in the former, emotions are brought forth expressively and ritualistically, while in the latter they are suppressed or repressed.

Again, based on his observations of symptomatic (autistic) children at the Orthogenic School, Bettelheim (1967) set about to sketch a new, largely developmental theory of the aetiology of autism and the kind of treatment modality he felt worked best. (It should be noted that Bettelheim's definition of 'autism' was consistent with Kanner's (1943) definition, which does not include the disabled or the mentally retarded.) Bettelheim reminded us that the first days of the infant's life are especially critical for self-development. Taking nursing as an example, he argued that just as much depends on how the infant is held as his actual milk intake. Summarizing, he made a point that he repeatedly made elsewhere. The infant's beneficial nursing and being nursed turns on the degree to which his satisfaction 'affords him to actively shape the total experience in terms of his own needs.'[16]

Earlier, Erikson (1950) had located the beginnings of autism in the mother/child relationship, but attributed it to the mother's reaction to the child's symptoms. While Bettelheim identified the starting point of autism in the first few days of life, Erikson concentrated on the mother's reactions to the fact that 'these children may very early and subtly fail to return the mother's glance, smile, and touch; an initial reserve which makes the mother, in turn, unwittingly withdraw'.[17]

Bettelheim's position in contrast was that within the mother/infant relationship, something precedes the infant's lack of response to the mother. He probably would not agree with Erikson's belief that the mother unwittingly withdraws. Although unwitting withdrawal certainly could happen, Bettelheim was more impressed by the insecure parents' need to defend themselves from their unborn child from the very beginning.

Bettelheim's 1967 book was met with resistance in the American psychological and psychiatric communities because it did not deal in depth with the possible neurological concomitants of autism. Bettelheim's view was that until mental-health professionals came up with a specific neurological disorder which was responsive to medication, psychotherapists had little choice but to continue with treatment efforts. While the parents were not included in the Orthogenic School programme, Bettelheim did say that living with an autistic child was a hardship to which the parents often had no recourse but to respond erratically, sometimes punitively. The child brought out reactions in his parents which emanated from the impact of the autistic syndrome on them.

Bettelheim (1967) left no stone unturned in summarizing the psychological literature on autism. Furthermore, he went beyond psychoanalytic theory and looked to psychologists of other persuasions, such as Jean Piaget. Bettelheim's foremost commitment was to understand self-development, or the lack thereof, in autistic children. He thought psychoanalytic writings were attributing a too advanced selfhood to regressed autistic individuals whose behaviour had broken down in all areas, reflecting the absence of an organized psyche. Since a sense of self goes hand in hand with the child's first awareness of his surroundings, he borrowed from Piaget in saying:

> action requires no awareness, but having acted brings first awareness. Action, then, creates the separation of self and nonself out of primordial chaos. More correctly it should be said that action creates a cleavage between what acts and what is acted upon, a separation between what (through action) becomes a self, and what (through being acted upon) becomes its object.[18]

Piaget (1976), who had been refining his ideas on the self/nonself distinction from a cognitive-developmental perspective, wrote:

> The subject only learns to know himself when acting on the object, and the latter can become known only as a result of progress of the actions carried out on it. This explains the circle of the sciences, of which the solidarity that unites them is contrary to all linear hierarchy. Furthermore, and most importantly, this explains the harmony between thought and reality, since action springs from the laws of an organism that is simultaneously one physical object among many and the source of the acting, then thinking subject.[19]

The two traditions of psychoanalysis and cognitive-developmentalism thus combined as Bettelheim researched the puzzle of human existence without a sense of self.

Bettelheim (1967) tracked the development of three autistic children in the treatment milieu of the Orthogenic School and showed how arduous a task it was to bring autistic children to the point of recognizing themselves as one 'object' among many and as a source of the 'acting, then thinking subject'. Similar to the developing normal infant, Bettelheim wrote, 'Marcia', a pre-adolescent autistic girl, 'still needed to get to "know" something with her body, by doing something with it, before she could grasp it intellectually'.[20]

In the case of Marcia, Bettelheim's repeated point of departure from previous, primarily psychoanalytic, theory was his assumption that in treatment a psychotherapist could retrace developmental steps neither by starting with the child's yearning for a good-enough mother nor by assuming that in the child's psychology there was a partial 'introject' and/or a bad 'introject'. ('Introject' is the result of the process of internalization whereby aspects of the outer world and interactions with it are taken into the organism and represented in its internal structure.) Bettelheim observed that it was not Marcia's interest in a mothering person that led to her recognition of the outside world, but rather the development of a rudimentary self prior to the yearning for a good mother. Marcia, a child who had repeatedly suffered enemas in early childhood, first recognized what is 'me' and what is 'not me' by playing with her faeces in the bathtub. Bettelheim hypothesized that she then began to wonder if something could and did exist in the outer world, and that this development preceded an attachment to a mother figure.

Using Piaget's work as a basis for comparing the development of normal infants with 12-year-old Marcia, Bettelheim (1967) wrote that once the developing process is set in motion, autistic children often gain typical infant achievements much more quickly than the infant normally does. Speaking about the spatial development required by drawing, and quoting from Piaget's (1952) observations on his own children, Bettelheim wrote that in less than six months Marcia's drawings had moved from typical infant scribbling to drawing circles, drawing faces, drawing the complete human figure – while it takes several years for a normal infant to progress this far.

Concluding his account of Marcia, Bettelheim again returned to the psychological construct of 'introject', showing why it did not apply in Marcia's case until she had been in treatment at the Orthogenic School for five years. An introject, Bettelheim stated, requires an act of volition. By regulating Marcia's basic functions since infancy, her mother 'permitted Marcia no action on her own. Hence the bad mother, the bad object, was not incorporated but simply took possession of Marcia. To do anything at all would have meant adding to the power of the invader, so she did nothing at all.'[21]

Only after five years of milieu treatment was Marcia brought to the point of building a real self. On Marcia's progress after the age of 16, Bettelheim wrote:

> There was the move toward positive object relations coupled with a mastery of the outer world. But along with it came aggression and symptom formation. When I say symptom formation I do not wish to imply that autistic isolation cannot also be viewed as a symptom. But it is such an all-encompassing one that I am reluctant to call it so. The symptoms I refer

to [by 'symptom formation'] deal with fairly discrete aspects of mastery and defense, ones [Marcia] developed for dealing with particular problems, not with life as a whole.[22]

Still, Marcia was not analysable in the psychoanalytic sense. She continued to need a holding environment twenty-four hours a day for several more years to help resolve the many childhood problems that arose apace after she had begun to conceptualize herself as a unique person. Wrote Bettelheim: 'This once totally frozen, non-reacting girl was now alive, full of feelings, and the appropriate ones. In Hardy's sense, we had courted her when she had not cared greatly for life,

> . . . till evasions seemed wrong,
> Till evasions gave in to its song
> Until living aloofly loomed duller
> Than life among men.'[23]

Bettelheim's mentor: Sigmund Freud

It is said that in old age we return to our origins in an attempt to make sense of our lives. Bettelheim (1983, 1990) did just that through two books, the first of which celebrated his understanding of Freud and which he hoped would set American psychology straight by analysing the mistranslations of Freud's work from German into English. Bettelheim (1983) seemed to welcome delving into his own Viennese past, remembering his life in Freud's time and immersing himself once again in the cultural surroundings that influenced both himself and his great mentor. The mistranslations of Freud, he felt, led to our misunderstanding of Freud and to errors in psychoanalytic technique. Words influence concepts, Bettelheim noted, so that the mistranslations conspicuously impacted the way psychoanalysts thought about Freud's theory.

But the overriding message in *Freud and Man's Soul* is Bettelheim's reminder that Freud's theory was humanistic, despite his own preoccupation with rendering it scientific. Indeed, he quoted Freud's statement to Jung, 'Psychoanalysis is in essence a cure through love'.[24] Of the tension between a compassionate attitude and a scientific attitude toward man, Bettelheim wrote:

> Freud often spoke [in German] of the soul – of its nature and structure, its development, its attributes, how it reveals itself in all we do and dream. Unfortunately, nobody who reads him in English could guess this, because nearly all his many references to the soul, and to matters pertaining to the soul, have been excised in translation.
>
> This fact, combined with the erroneous or inadequate translation of many of the most important original concepts of psychoanalysis, makes Freud's direct and always deeply personal appeals to our common humanity appear to readers of English as abstract, depersonalized, highly theoretical, erudite and mechanized – in short, 'scientific' – statements about the strange and very complex workings of our mind. Instead of instilling a deep feeling for what is most human in all of us, the translations attempt to lure the reader into developing a 'scientific' understanding of the unconscious and how it conditions much of our behaviour.[25]

One of the major deficits in our understanding of Freud's theory emerges from our improper use of Freud's conceptualization of the organization of the psyche. The three realms, conscious, preconscious, and unconscious, which are psychological constructs, were meant none the less, according to Bettelheim, to appeal to us personally. Moreover, in choosing the words to designate the structure of the mind, Bettelheim wrote, Freud used words familiar to every German child. By doing so Freud hoped that psychoanalysis would be accessible to a broad readership and would appeal to our most deeply felt experiences. Bettelheim noted that the words 'I' and 'it' in the title of Freud's book in German, *Das Ich und das Es* (1923), were translated into their Latin equivalents rather than into English words.

> The translations of these personal pronouns into their Latin equivalents – the *ego* and the *id* – rather than their English ones turned them into cold technical terms, which arouse no personal associations. In German, of course, the pronouns are invested with deep emotional significance, for the readers have used them all their lives. Freud's careful and original choice of words facilitated an intuitive understanding of his meaning.[26]

He went on to explain that using the words 'ego' and 'id' instead of 'I' and 'it' impedes the psychoanalyst's goal of allying the patient with him in analysing the patient's conflicts. Psychoanalysis has it that the ego of the patient must combine with the psychoanalyst's counsel in order to produce a cure. But, Bettelheim argued, 'it is not the *ego* but the "I" more than any other term of psychoanalysis [that] encourages us to make the unconscious become conscious and to think psychoanalytically.'[27]

About a defensive patient, Bettelheim wrote that it would be easy for such a patient to say: 'I won't any longer be run by my irrational anxieties.' It seems ludicrous to imagine someone saying, 'My ego won't any longer be run by irrational anxieties.' It is equally ludicrous to imagine that the distancing effect of the word 'ego' would permit such a patient to ally himself with the analyst in any meaningful way, while it is easy to imagine that such a patient would use the terms 'ego' and 'id' defensively to distance himself from the psychoanalytic process.

The remedy, according to Bettelheim, is to repersonalize psychoanalysis by being continuously aware that the English translations tend to distance psychoanalysts from their patients. Understanding Freud's purpose in naming mental constructs would attune them to his teachings and to their patients as well.

Bettelheim's last work, *Freud's Vienna and Other Essays* (1990), once more returned him to his origins as he wrote autobiographically of his upbringing in Vienna. This work is at once hard to categorize and yet typical of his far-ranging interests and his tendency to write essays – many of which were synthesized in book form. Out of his personal experience he wrote commentaries on the lives of children. He described the appeal that psychoanalysis had for him as a youth, again acknowledging Freud's place in his formative years. He wrote as well on autistic children and the significance of the Holocaust for society generally and for children particularly. He retraced his steps in applying psychoanalysis to cultural issues and social problems as he contemplated what he had learned from Freud, his great master.

It is fitting that his last book was largely autobiographical, reflecting the beginnings of his dedication to the psychoanalytic tradition. The chapters on the meaning of the Holocaust, in which he compared the experience of brutalized prisoners to the emotional anguish suffered by autistic children, contain none the less some hopeful writing on how we, in this modern age, can come to terms with society in more productive ways. While Bruno Bettelheim was ready, often eager, to search man's soul for the darker sides of human nature, he was also committed to showing us ways to overcome our complexes, to reinvigorate society with a humanistic view, and to help us find the many, varied and personal meanings in life.

Notes

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2. Bruno Bettelheim, *Love Is Not Enough*, pp. 137–8, New York, The Free Press, 1950.
3. Ibid., p. 150.
4. Ibid.
5. Bruno Bettelheim, *Dialogues with Mothers*, p. 1, Glencoe, Ill., The Free Press, 1962.
6. Bruno Bettelheim, *A Good Enough Parent*, p. 111, New York, Alfred A. Knopf, 1987.
7. Ibid., p. 166.
8. Ibid., p. 167.
9. Bruno Bettelheim, *The Uses of Enchantment*, p. 5, New York, Alfred A. Knopf, 1976.
10. Bruno Bettelheim, *The Informed Heart*, pp. vii–viii, New York, Alfred A. Knopf, 1960.
11. Ibid., p. viii.
12. Bruno Bettelheim and Morris Janowitz, *Social Change and Prejudice*, pp. 273–4, Glencoe, Ill., The Free Press, 1964.
13. Bruno Bettelheim and Karen Zelan, *On Learning to Read*, pp. 283–4, New York, Alfred A. Knopf, 1982.
14. Bruno Bettelheim, *Symbolic Wounds*, p. 10, Glencoe, Ill., The Free Press, 1954.
15. Ibid., p. 59.
16. Bruno Bettelheim, *The Empty Fortress*, p. 17, New York, The Free Press, 1967.
17. Erik Erikson, *Childhood and Society*, p. 181, New York, W. W. Norton, 1950.
18. Bettelheim, *The Empty Fortress*, op. cit., p. 14.
19. Jean Piaget, *The Grasp of Consciousness*, p. 353, Cambridge, Mass., Harvard University Press, 1976.
20. Bettelheim, *The Empty Fortress*, op. cit., p. 200.
21. Ibid., p. 228.
22. Ibid., pp. 229–30.
23. Ibid., p. 232.
24. Bruno Bettelheim, *Freud and Man's Soul*, p. vi, New York, Alfred A. Knopf, 1983.
25. Ibid., pp. 4–5.
26. Ibid., p. 53.
27. Ibid., p. 56.

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ALFRED BINET

(1857–1911)

René Zazzo

'The old science of education is like an old-fashioned carriage: it squeaks but it can still serve a turn . . . [modern educational science] looks like a precision-made machine, but the parts do not hold together and it has one defect: it does not work.'

Such is Alfred Binet's conclusion in the final chapter of his last book *Modern Ideas about Children*. Published in 1911, this is a critical review of what 'thirty years of experimental research . . . have taught us about educational matters'. However, the author does not just summarize this research – both his and that of others – but suggests new avenues of investigation and so outlines the work to be done in the future. This future did not include him, however, as he died a few months after the book's publication. His review is thus something of a testament.

'I sought a middle course, halfway between the old science of education and the one promised us by the innovators – laboratory people', he wrote. Have his words been remembered? Or at least have we followed this middle course envisaged by Binet?

Binet criticized traditional education for being excessively verbal and moralizing, but considered that, however worthy of criticism its methods may have been, it had the merit of being part and parcel of school life. He therefore felt that we should keep its 'direction and its concern with real problems'.

To his mind, the innovators were to be commended for their emphasis on experimentation and insistence on verification and precision in education and pedology alike. However, their blindly administered tests and their overly fragmented experiments for the most part served no purpose. 'These people have no notion of what school – or even life itself – is . . . and seem never to set foot outside their laboratories.'

His conclusion was that 'from old-style education we should derive the problems to be studied, and from the new – the methods of study'.

Which problems did he have in mind? Reading *Modern Ideas about Children,* we discover that Binet was simultaneously conducting studies on lazy children, carrying out a survey of the best ways of teaching deaf-mutes, and experimenting in teaching morals to a class of abnormal children.

With regard to the latter, we find that Binet was of the opinion that there was, strictly speaking, no such thing as special education. According to him, the same methods could be used for everyone, and consisted of a progression from the easy to the more difficult, taking into account, of course, the individual abilities of the child, which meant that the teacher had to know every one of his pupils.

That sounded self-evident, but it raised the question of how to gauge the children's level of instruction and how to ascertain their level of development and intelligence. It might be supposed at this point that we shall explain how Binet devised and developed the famous Binet-Simon intelligence test, in collaboration with his colleague Théodore Simon. Psychologists the world over are familiar with this test, which has been translated and adapted into a dozen different languages. It has, in fact, become so well known that it has far outstripped the fame of its originator. Alfred Binet has been thrust into the shadows by the Binet-Simon scale.

We should, on the contrary, like to show here how the development of this test casts light on the way Binet thought, and how it is the outcome of a whole series of activities. To begin with, however, it is necessary to say something about Binet himself, and in order to get to know him better and place him in the intellectual context of his time, it would be helpful to look at a few milestones in his life and career.

One life – many different paths

Alfred Binet was born in Nice in 1857. His father was a doctor and his mother a painter. After completing his secondary schooling in Paris at the Lycée Louis-le-Grand, he went on to study law.

In the course of his law studies, he began to show an interest in a completely different area. In 1880, the distinguished *Revue philosophique,* edited by Théodule Ribot, published Binet's first two articles on the psychology of sensations and images, subjects that were then being debated. Ribot encouraged Binet to continue working in the new direction he had begun to take.

Throughout the 1880s Binet showed himself to be an extraordinarily intense worker with an astonishing capacity for aiming at several different objectives simultaneously. During this period, he became skilled both in psycho-physiology and in clinical psychiatry. Under the direction of the embryologist Balbiani – whose daughter he married in 1884 – Binet began to study natural science at the Sorbonne and to conduct experiments. At the Salpêtrière hospital, with Charcot, whom he had met through a classmate from Louis-le-Grand, he discovered the field of hypnosis and suggestion, and began work on what he termed 'morbid psychology'.

The birth of his two daughters, Madeleine (1885) and Alice (1888), was nevertheless to provide him with another, entirely new, centre of interest – child psychology – and more specifically the study of individual differences in relation to education and genetic inheritance.

This in no way interfered with his embarking on other fields of study. In 1890, on a railway platform, he made the chance acquaintance of Henri Beaunis, director of the laboratory of psycho-physiology founded the year before at the

Sorbonne. He offered to work with Beaunis and Beaunis agreed. In 1892, he was contacted for the first time by Théodore Simon, recently assigned to a psychiatric internship at the Perray-Vaucluse Centre, who sought Binet's advice concerning the education of the abnormal children in his care. Although he needed some coaxing, Binet finally agreed to co-operate, and so the indissoluble and history-making partnership of Binet and Simon was born.

The year 1894 was particularly outstanding in terms of Binet's diverse interests, activities and accomplishments. He received his doctorate for a thesis devoted to the study of 'the sub-intestinal nervous system of insects'; founded *L'année psychologique* with Beaunis whom he succeeded as director of the psycho-physiology laboratory; published *Psychologie des grands calculateurs et joueurs d'échecs*; and, in conjunction with Victor Henri and other researchers from the laboratory, published his *Introduction à la psychologie expérimentale*, as well as several articles on psychological problems and problems of educational psychology (suggestibility, memory, character, etc.).

However, educational concerns and the social objectives of education were to become Binet's overriding interest, and he spent less and less time in the psycho-physiology laboratory.

In 1898, he launched a series entitled 'Bibliothèque de pédagogie et de psychologie' with Victor Henri. The following year, he joined the recently formed Société Libre pour l'Étude Psychologique de l'Enfant founded by Ferdinand Buisson, Professor of Educational Science at the Sorbonne. Binet quickly became its mainstay.

In 1904, Binet and Simon brought about the establishment of a ministerial commission to examine two problems: the diagnosis of different degrees of mental retardation and the education of abnormal children. Six months after this commission was established, Binet presented his diagnostic test, the first version of the Scale for the Measurement of Intelligence, to the International Congress on Psychology (Rome, 1905).

In 1905, he obtained official recognition for a school-based research centre in the working-class neighbourhood of Belleville in Paris as an 'experimental educational laboratory', where he had already worked closely for many years with Vaney, the school's principal.

The following years were primarily devoted to developing his famous test. From 1909 to 1910, in response to a request from the War Ministry, he studied several dozen conscripts and took advantage of this opportunity to add an 'adult' level to his test.

His health had begun to fail, however, and the day after a meeting of the Société Libre, he suffered a stroke, and died a few weeks later on 28 October 1911. He was 54 years old.

Sixty years later, on 5 June 1971, I attended a ceremony at which a plaque was affixed to the building at 36 rue de la Grange-aux-Belles, Belleville. At the back of the hall where the ceremony was being held were twenty elderly people. I asked the school principal who they were, and I found his reply more moving than all the speeches we had just heard since he told me that they were some of the schoolchildren Binet had examined in the early years of the century at Belleville.

The individual as a subject of study

'Education should be preceded by a study of individual psychology' (*Modern Ideas about Children*, 1911). 'Individual differences are more pronounced for advanced thought processes than for elementary ones' ('La mesure en psychologie individuelle', 1898).

Binet's entire work as an educator is based on these two principles. The second theory is his own and we will see how he used it in developing his intelligence test. The first, which confers a scientific status on the individual, derives from Darwin's ideas about evolution, then in the first flush of youth, as developed by Darwin's cousin Francis Galton. *The Origin of Species*, published in 1859, stated for the first time that the evolution of species could be explained by natural selection, which implied the existence of individual distinctions that were hereditary to a greater or lesser extent. Galton was endeavouring to produce proof of this.

In order to do so, and to evaluate the respective contributions of heredity and environment (nature and nurture), Galton decided to compare the physical and mental similarities and differences of sets of identical and fraternal twins (*The History of Twins*, 1875). He developed tests – of an early type – and defined experimental psychometrics as 'the art of imposing measurement and number on the functioning of the mind'. In devising his method based on the study of twins, he also discovered the statistical concept of correlation.

Galton was primarily concerned with heredity, however, and Binet did not find in his ideas anything affecting education. The theory of evolution, whose subversive message echoed the Industrial Revolution and its repercussions, was nevertheless about to redefine the goals and approach of the human sciences, which Binet noted when he welcomed a renewal of interest in experimental psychology. He adopted the expression 'mental tests', coined in 1890 by McCattell, to designate individual testing instruments, and also adopted the term 'pedology', invented by Chrisman in 1894, to describe the science of the child. Where new theories were concerned, he was primarily attracted to what had become known as 'the American front', which included John Dewey, 'the teacher's teacher and the John the Baptist of democracy', and James Mark Baldwin, mocked as the 'nursery psychologist' by traditionalists. Dewey and Baldwin were both on the side of evolutionism, but much more important to Binet was their keen sense of observation and their interest in the diversity of individuals.

When an experimentalist criticized him for not providing a strict definition of the psychological phenomenon to be observed and for examining subjects unfamiliar with laboratory techniques and not trained in introspection, Baldwin replied that things were perfectly satisfactory as they were. Psychological investigation should focus on the diversity of human minds, whether trained or not. Indeed, training tended to mask individual differences, which was exactly what happened with the well-trained subjects at the Leipzig laboratory. When the experimenter retorted that the same components and the same laws should be found in all human minds, Baldwin replied that he was ignoring the lessons of nature, which was tantamount to saying that he was repudiating science.

These remarks, which date from 1895, are a good illustration of the opposition that Binet himself encountered among the laboratory community. He had to prove that individual differences were not incompatible with the laws of science, but in order to do so, he had to catalogue, much more meticulously than Baldwin had done, 'the lessons of nature'.

He sought out, described and checked such individual differences in ordinary as well as in exceptional subjects – subnormal and very gifted children or those possessing unusual skills, such as mathematical prodigies, chess players, eminent authors and actors.

His penchant for 'characters', along with his knowledge of 'morbid psychology', was to prompt another activity so far unmentioned: that of dramatist. In fact, in collaboration with André de Lorde, he wrote nine plays, performed for the most part at the Grand-Guignol and Sarah Bernhardt theatres; but this is not the topic of our discussion here.

On the other hand, the question he raised concerning abnormal children is of very great importance. He asked whether that which distinguishes them from 'normal' children is a matter of degree or one of kind. He then asked how the concept of difference can, in general, be defined and how any difference can be measured. Binet's answers to these questions will be discussed below, when we examine how he resolved the thorny problem of measurement in psychology.

Before Binet considered this problem, and while concerned with the education of abnormal children, he began, between 1898 and 1901, to examine 'ordinary' individuals. He published his collected observations on these people in 1903 in a book entitled *L'analyse expérimentale de l'intelligence*. 'The twenty people who agreed to take part in my research', he wrote, 'included adults and children, men and women, from all walks of life.' It is clear that with such a limited and heterogeneous sampling, Binet's aim at that time was not to develop a scale of averages. In any event, averages were not then of interest to him, and he in fact shied away from them. He railed against the American obsession with large numbers. According to Binet, twenty subjects were quite sufficient for an accurate study of the higher functioning of the mind and its individual differences, and for developing an experimental method of analysis.

Twenty, or even two, subjects were sufficient, as long as they could be compared. In fact, virtually the whole of his book is devoted to his two daughters, who appear in it under different names (Madeleine becoming Marguerite, and the younger daughter, Alice, Armande). 'By the time I had finished the main experiments', he informs us, 'the older girl was fourteen-and-a-half and the younger thirteen.'

For three years, several times a month, Binet conducted numerous tests on the two girls. There was a wide variety of these, including memory, imagination and attention tests, description of objects, and so on. However, he explains, 'the primary purpose of this book is to study, in the *ideation* process, what makes each of us unique'.

Binet, in his 'conclusions' to his findings, presents contrasting portraits of his daughters, each having its own logic, consistency and harmony. In Marguerite we find precision of thought, a long attention span, a practical mind, a poor imagination, a lively interest in the outside world, etc. Armande's thought processes, on the other hand, were not so well defined. Her attention was easily distracted, she had a rich imagination, a weak sense of observation, a detachment from the outside world, etc.

Binet asks himself if these two sisters 'do not, curiously, represent – inasmuch as two individual human beings can represent a general picture – two important tendencies in human intelligence?' For the time being, however, Binet had not yet come up with a definition of intelligence.

Binet's book illustrates in a masterly way his own progressive approach towards establishing a psychological science of differences. Not a word is said in the entire 307-page book about education or teaching. In line with the first principle stated above, we must accept it as a preliminary work.

A footnote in the book is worth noting and thinking about:

> I would have been happy to continue my experiments with my two daughters had I not noticed that with age, there have been some changes in their characters. The psychological portraits I sketched of them are less applicable today than they were three years ago; and it seems probable to me that in ten years' time or so, other even more important changes will have taken place.

With regard to change, it should be noted that he uses the word 'character', and not 'intelligence' or 'ideation'. This is of little importance in any case. The fundamental question is that of the qualitative changes in the personality in the process of ontogenesis.

The question posed by Binet, incidentally, has remained unanswered to this day.

Psychological measurements

We should not forget that, on the topic of individual differences, *L'analyse expérimentale de l'intelligence* (1903) preceded the development of the scale of measurement and, similarly, where educational psychology is concerned, that the publication of *Enfants anormaux* (1907) preceded *Modern Ideas about Children* (1911). Thus Binet advances from a purely qualitative description to an undertaking involving measurements, and from the education of mentally deficient children to that of all children. These two movements, both resulting in the unanticipated measurement of intelligence, represent not so much a complete break in Binet's work as a change of direction.

With regard to the creation of his intelligence test, he said towards the end of his life that 'there is nothing like necessity for prompting new methods'. The necessity in his case was his desire to 'do something for children', and first of all for those unable to learn in the school environment.

Why were they unable? How could the seriousness of their disability be assessed? Could it, in some cases, be corrected? Education, and above all that of schoolchildren who had only recently been labelled as mentally defective, 'is one of the most important questions of our time'.

Mental deficiency is the product of compulsory education, which itself arose out of the 'demands of a democratic and industrial society'. When illiteracy was common, only the most feebleminded, such as patients in mental institutions and village idiots, stood out.

Educational research – with the exception of special education for the blind and deaf-mutes – was thus first applied, in France and elsewhere, to the mentally deficient. Binet followed his principle that a meticulous psychological analysis and thorough diagnosis must precede any trial of the teaching methods that might be suitable for them. He thus refined his educational concepts, going from a definition of areas of 'unintelligence' to a scale for the measurement of intelligence.

In 1892, when Binet, along with Simon, began to take an interest in the education of abnormal children, compulsory primary education had existed in France for ten years (since the Law of 28 March 1882). This led him to question the shortcomings of such education. His first concern was to develop methods by which to diagnose the intellectual level not only of maladjusted children in primary schools, but also of 'subnormal children in institutions', of whom there were many in Perray-Vaucluse.

The road to the construction of his measurement scale was a relatively long one, and very different from that of the psycho-physicists, who were the first to introduce measurement into psychology.

The ideal of being scientific, which consisted of 'applying measurement and number to the operations of the mind', was apparently met in 1860 with the Weber-Fechner law according to which 'the intensity of sensation is proportional to the logarithm of stimulus'. The problem is that psychology remains dependent on physics, since sensation could not be measured directly but only evaluated through the intensity of the stimulus.

With the manifesto written in the form of an article by McCattell in 1890 and with the promotion of mental tests designed to evaluate individual differences for practical, educational and other purposes, a new direction was becoming apparent, diametrically opposed to that of laboratory psycho-physicists and psychologists.

In the United States, the science of testing was in its heyday, yet no American psychologist had developed a test capable of measuring individual differences clearly and effectively when the first version of Binet's measurement scale appeared in 1905. How was it that Binet had succeeded where McCattell's compatriots had failed?

The main reason is clear. While they rejected laboratory objectives, American psychologists nevertheless retained laboratory instruments; but it is difficult to distinguish clearly between individuals through their responses to sensory stimuli or by their reaction times.

With Binet came the epistemological break. He was the first to apply the notion of measurement to higher mental processes and complex psychological phenomena, which until that time had been a field reserved for clinical intuition and literature.

Nevertheless, how was it possible to arrive at a scale for measuring individual psychology? Binet had many apparently very different tasks in hand, but these soon began to converge. There was his own systematic observation of his daughters; he worked with Simon where mental patients were concerned; and he worked with Vaney and teachers on the educational evaluation of over 1,000 schoolchildren in Paris and the Paris region. Whoever the subjects were to be examined, they were always given a broad range of tests. Each individual, Binet said, is 'a network of tendencies, and . . . what we must be able to assess is the outcome of these tendencies'.

The convergence between the strictly individual approach and measurement on a scale is manifest in Binet's use of the data provided by Armande and Marguerite since most of the tests they were given appeared a few years later in the scale.

Let us take as an example the test using an illustration of a boy and an old man pulling a cart. The child is asked what he or she sees in the picture. On the basis of his daughters' replies, Binet distinguished several categories, for example, descriptive, observational, emotional and so on. These categories were retained, for children under 10, for more detailed analysis of the results of the intelligence test. This constituted the clinical aspect of the test, giving it its individual character. However, the genetic angle produced a different picture.

Replies are classified under three age-groups: enumeration at age 3; description beginning at age 7; and interpretation towards age 12.

At age 3, the child enumerates people and objects without establishing any relationship between them. For example, he will say he sees 'a man, a cart and a child'. No action is mentioned. At 7, the child sees 'a man and a little boy pulling a cart'. Beginning at age 10 to 12, he will see 'a homeless family leaving their village', 'people moving house', etc.

Obviously, the enumeration, description and interpretation vary in their formulation and emotional tone from one child to another. This must be taken into account in comments on the results. However, these age levels did not appear in the first version of the scale published with Simon in 1905. 'Our goal', said the authors, 'is to determine if the child brought before us is normal or mentally deficient.'

The test consisted of thirty tasks in a series of increasing difficulty. The test results were based on the calculation of the score, independent of age-group. The borderline between mental deficiency and normality was at Task 25, where the subject was asked to make up a sentence using three words (Paris, fortune, stream), which is a test that was later revealed to correspond to the 10-year-old age-group. This test for identifying retardation was thus applicable only to children who had reached the end of childhood.

Three years later, in 1908, the measurement scale proper was published, with its gradations from ages 3 to 13. The test for retardation had thus given way to the intelligence test, specifying at the same time the mental age.

The term 'scale of measurement' itself predated the creation of the intelligence test in Binet's work. Calculating years of advancement and years of backwardness was suggested to him by the practice of stages in education. He used it in collaboration with Vaney for working out instructional scales as well as evaluating the physical development (height, weight, chest measurement, etc.) of schoolchildren. In order to compare physical stature and school level, he had the idea of 'replacing discrepancies (in relation to the average) of height in centimetres by differences in age'. Thus, for example, a child could be two years behind in physical size and one year behind in school.

It was a practical step, but what were its theoretical implications?

When we are dealing with different ages, noted Binet, one quantity is not contained in another. Twice two does not equal four! As early as 1898, in his article entitled 'La mesure en psychologie individuelle', he had written: 'I think that psychological and educational measurement is not true measurement but simply a form of ranking'. In *Modern Ideas about Children* (1984), speaking specifically about his measurement scale, he adopted a different approach: 'Here the word measurement is not used in the mathematical sense. . . . It covers a whole system of evaluation that we believe to be new and whose main implications we do not have the time to explain. . . .'

The question nevertheless remained as to whether, with this non-mathematical measurement, a given figure or level had the same value regardless of the age of the child. For example, would a mental age of 5 for a 10-year-old child be equivalent to the level of a child of 5? The question was even more important for the educator than for the psychologist.

Binet gave his reply in 1908 in a commentary on his observations: 'So far, what strikes us are the similarities between normal and abnormal children. They are so numerous that when you read the reaction reports of a child of unspecified age, you cannot say whether the child is normal or abnormal.' However, he found it odious to equate the intelligence of a backward child with that of a normal one. 'Certain differences might be concealed beneath the similarities and one day perhaps we shall succeed in identifying them.'

But depending on whether a backward child can or cannot be treated as a normal child, his education and the kind of teaching he needs will be either identical or different. To begin with, can the diagnosis enable any prognosis to be made? Is it possible to foresee the future? The answer is that no predictions can be made; the present situation can be noted and that is all. In setting up remedial classes, the first of which was opened by Binet himself in 1907, he sought to test the educability of retarded children whose mental level he had previously measured.

Nevertheless, what is the real purpose of this measurement that is not a 'true measurement'? In other words, what is intelligence? Binet did not define it, even when he subjected it to his 'experimental analysis'. He retained the imprecision of ordinary language, doubtless so as not to run the risk of arbitrary theorizing. What eventually led him to a definition were ten or so years of observation and experiment.

In the 1905 article in which he outlined for the first time the principles underlying his test, he said that 'the fundamental organ of intelligence is judgement, that is to say common sense, a practical outlook, initiative and the ability to adapt'. In *Modern Ideas about Children* the terminology is different: 'Understanding, inventiveness, direction and censure: intelligence is summed up in these four words.' By censure he meant that, in any intellectual activity, 'ideas are weighed up as and when they occur and are rejected if unsuited to the objective being pursued'.

The educator: assessment and prospects

The striking thing about Binet is the singular way in which his ideas developed, coupled with the unorthodox views he adopted in all fields: in psychology, which was trying to find its niche between philosophy and physiology; in psychometrics, which was more or less in thrall to the tradition of the natural philosophers; and in the then ebullient world of educational psychology.

This singularity has often been unwelcome or misunderstood. Even today, a striking example is provided by the education of retarded children, with many voices favouring the integration of these children into ordinary schools.

Binet, as the promoter of special education and the creator of remedial classes, is furiously attacked as responsible for psychological discrimination based on an ideology of segregation and exclusion. As has been emphasized by Guy Avanzini, the shrewdest expert on Binet's research, his intentions were exactly the opposite. He believed in the perfectibility of abnormal children, but he insisted that such perfectibility must be verified.

Remedial classes were devised as means of preparing the way, as far as possible, for children to move into ordinary classes. Binet himself took on the task of finding, by means of his test, about fifty retarded children, organizing how they should be taught and educated, and looking to see what hitherto unrecognized aptitudes they might have.

He found that many of them had skills and motor dexterity roughly equal to those of children of the same age. From this point of view, they were not retarded. For them, the workshop was to become a more important place of instruction than the classroom, which amounted to an early application of the active method. For the others, there was hope of a return to normal schooling, even if they were a year or two behind. Binet had opened up new possibilities, two potential solutions that needed to be confirmed.

Here we find a constant feature of Binet's thinking that corresponds quite closely to the combined effect of censure and inventiveness. It is illustrated in the opening lines of this essay by what he thought about the respective qualities of the old and the new science of education.

It is also reflected in his anxiety to avoid the trap of a facile word, idea or practice. This applied as much to his own contributions as to those of other people. To illustrate this, let us take his two major themes: the establishment of individual psychology and the need for an objective measurement of intelligence. 'My test', he wrote, 'is not like a weighing machine in a station which prints out your weight on a ticket.' Its results need to be examined, set within a context and interpreted. His measurement scale 'is an instrument that must not be allowed to fall into the hands of a fool'. Where individual psychology was concerned, Binet was troubled by the zealousness of certain educationists whose ideal was a 'tailor-made' school in which teaching would be totally individualized.

If we ask too much, he said, we will achieve nothing; if we take a legitimate idea too far, we distort it. 'Public education', he went on, 'cannot be other than collective education, given by a teacher to a number of pupils together. . . . Collective education must not be rejected outright because it has advantages that we cannot do without: without it there would be no imitation or emulation, [which are] such powerful stimulants for progress.' In other words, solutions have to be devised that preserve the advantages of group instruction while taking account of individual differences. 'For this, we must not rely too much on new regulations from the Ministry. It would be infinitely more useful for teachers to take an interest in their pupils', to take the trouble to get to know them individually. 'All that we can ask of an understanding government is to reduce the number of overcrowded classes.'

Binet says that the public blames the authorities, i.e. the government, for what is known by the odd and highly debatable expression of *the crisis in education* (his own emphasis). 'Immediately, everyone comes up with the same idea: there is only one remedy and that is to change the curricula.'

This view had to be criticized for being exclusive. Just as important, if not more so, were the need to adapt the school to the aptitudes of the children and the methods of teaching. Binet employed 'method' in a very broad sense as covering the way primary teachers were recruited, their training, regulations on the length of lessons, the timetable (which determined, for example, what subjects should be taught first thing in the morning), and the timing and length of school holidays. All these questions, to which Binet tried to find answers, were dominated in his thinking by the need to take account of the children's mental fatigue and workload.

On the subject of moral education, Binet revealed the roots of his philosophy. Now that schools were secular, how were children to be taught morality? Against religious education, which was accused of enslaving the soul, was being set an education of complete freedom; but that was going from one extreme to another. 'People now talk ceaselessly', observed Binet, 'of the rights of the child and of the rights of its conscience', but that was to confuse the methods of education with its purposes. 'The purpose is to form free men and women, but the method cannot consist in treating the child as a free adult, nor in appealing to its reason when the child has not yet attained the age of reason.'

Moral training stemmed from two principal motivations. First was 'the child's respect for its parents and its teachers'. This contains the idea of authority, duty and obligation without which no moral sense can be effective. Next came the feelings of altruism, goodness and disinterestedness, 'all those warm and tender impulses which lead to self-sacrifice and give morality a heart'.

With this lesson for teachers, *Modern Ideas about Children* closes. No longer lost in the shadow of the Binet-Simon test, Binet now appears to us in a clear light. Most of the questions he raised, the answers he gave to some of them and the prospects he opened up are still relevant today.

Selected works by Alfred Binet

Abbreviations: *L'année psychologique*: *A.P.*; *Bulletin de la Société libre pour l'étude psychologique de l'enfant*: *Bul.*; *Revue philosophique*: *R. Phil.* The works are given in chronological order.

Du raisonnement dans les perceptions. *R. Phil.*, 1880.

La psychologie du raisonnement. Paris, Alcan, 1886. (Published in English as *The Psychology of Reasoning*. Chicago, Open Court, 1896.)

Recherches sur le mouvement de quelques jeunes enfants. *R. Phil.*, 1890.

Enquête sur le caractère des enfants. *R. Phil.*, 1894.

Introduction à la psychologie expérimentale. Paris, Alcan, 1894.

La peur chez l'enfant. *A.P.*, 1895.

La mesure en psychologie individuelle. *R. Phil.*, 1898.

La fatigue intellectuelle. Paris, Schleicher, 1898.

Quelques réflexions sur l'application de la méthode expérimentale à la pédagogie. *Bul.*, No. 2, 1901.

L'analyse expérimentale de l'intelligence. Paris, Schleicher, 1903.

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A propos de la mesure de l'intelligence. *A.P.*, 1905.

Les nouvelles classes de perfectionnement. *Bul.*, No. 41, 1907.

Les idées modernes sur les enfants. Paris, Flammarion, 1911. (Republished by Flammarion in 1973 with a Preface by Jean Piaget; published in English as *Modern Ideas about Children*. Menlo Park, Calif., Suzanne Heisler, 1984. 235 pp.)

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Bertrand, F.-L. *Alfred Binet et son œuvre.* Paris, Alcan, 1930.

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Zazzo, R.; Gilly, M.; Verba-Rad, M. *Nouvelle échelle métrique de l'intelligence: analyse et révision du test 'Binet-Simon'*. Paris, A. Colin, 1966.

Hommage à Binet (pour le centenaire de sa naissance). *Psychologie française* (Montrouge, France), No. 2, 1958. (Special centenary issue with contributions by educationists, psychologists and psychiatrists and including 'Quelques souvenirs personnels' [Some Personal Memories] by Henri Piéron.)

PAVEL PETROVICH BLONSKY

(1884–1941)

Mihail Gerasimovich Danilchenko

The work of Pavel Blonsky, the outstanding Soviet psychologist and educationist, was exceptionally wide-ranging. A man of scholarship and erudition – philosopher, psychologist and educationist – he stood out by the depth and boldness of his thought in framing and solving the scientific problems of his day. Blonsky's name is associated with the founding and development of the Soviet schools of psychology and educational sciences. He was the author of some 200 works on psychology, education and philosophy, including pioneering monographs, textbooks, and methodological and experimental investigations, which contributed in the 1920s to the establishment and development of the entire Soviet system of education, and it was by Blonsky's works, translated into other languages, that the state of Soviet education and teaching were judged abroad.

Life and works

Blonsky was born in Kiev, the son of a minor official, on 14 May (26 May, new style) 1884. He was educated here, first in the classical high school and then at the university, where he graduated from the classics department of the history and philology faculty. Blonsky's student years (1902–07) coincided with the first Russian Revolution. For his active involvement in the revolutionary movement he was repeatedly imprisoned.

In the years preceding the 1917 October Revolution, Blonsky's view of life was full of contradictions due to the influence of different currents of thought, but his practical teaching activities, which dictated his interests and research, played a major role in shaping his outlook and scientific views. From 1908 he taught education and psychology in girls' high schools in Moscow. After obtaining his Master's degree in 1913, Blonsky became an assistant professor at Moscow University. It was during this period that he began to give lectures on educational psychology at summer courses for teachers in various cities. In his lectures, Blonsky developed the idea of the need for the all-round development of children. He frequently expressed ideas that were too advanced for his time and in 1914/15 his appointment as a lecturer at the Tikhomirov advanced courses for women was not renewed.

Blonsky made a thorough study of the works of leading Russian and foreign educationists, such as Ushinsky, Tolstoy, Comenius, Rousseau, Pestalozzi, Fröbel, Gansberg, Scharrelmann and Dewey. Of the ideas contained in this educational legacy, he was particularly impressed by those concerning the national characteristics of education and culture, the training of pupils for creative work, the scientific foundations of teaching methods, the need to plan the education system on a strictly rational basis, and the importance of sound theoretical and practical training for teachers.

No sooner had the Soviet state come into existence than Blonsky became a proponent of the new socialist school and an active participant in its creation.

> I consider it the greatest of good fortune [he wrote] to have lived at the time of the October Revolution. Such times force us to rethink our ideas radically, call everything into question and lay bare the most deeply hidden principles. At the same time, it is doubtful if there can be anything even remotely comparable to the vast creative upsurge that occurs at such moments. I am happy that the spirit of the October Revolution inspired me in my educational work.[1]

In the autumn of 1918 he was made a professor at Moscow University and at several other higher educational establishments. He played an active part in the organization of the Academy of Socialist Education (later to become the N. K. Krupskaya Academy of Communist Education) and became its first rector. Krupskaya, Tsetkin and Lunacharsky lectured there and, with the help of a devoted and hard-working body of teachers, Blonsky made the academy the leading institute of education.

During his teaching years, Blonsky trained a large number of teachers, educationists and psychologists. He was sensitive and caring in his educational work with young specialists, giving them self-confidence and encouraging initiative. He also contributed to such periodicals as *Trudovaya Shkola* [The Labour School], *Sotsial'noe Vospitanie* [Social Education], *Narodnoe Obrazovanie* [National Education], and *Na Putyakh k Novoi Shkole* [Towards the New School], joining their editorial boards.

In 1922, Krupskaya enlisted Blonsky's services in drawing up curricula for schools. Working with her in the scientific education section of the State Academic Council (GUS) was largely responsible for giving a Marxist trend to his educational and psychological views.

Krupskaya supported Blonsky's studies of child development and his other psychological and educational investigations. Their correspondence contains passages on their joint efforts to introduce work as a subject of study in schools.

Recalling the years in the scientific education section of the State Academic Council, Blonsky wrote:

> In 1932 the Council was disbanded. But there can be no denying that it stimulated educational thinking throughout the country. This can be seen in the substantial volume of educational literature, both theoretical and classroom, which was then published. . . . The results

of the work of Soviet experimental schools were published, all the new ideas to be found in foreign educational literature were snapped up avidly, people travelled abroad to find out how education was organized and they tried to introduce into Soviet schools anything that seemed valuable. Educational controversy seethed and disputes were aired in public debate and in the press. All manner of public discussions and public criticism of different educational principles and measures raged around Krupskaya. The GUS invited the teaching profession to share its ideas, doubts and achievements, and many articles in the periodical *Towards the New School* reflect the varied creative endeavours of teachers of that period.[2]

Blonsky combined a vast amount of practical teaching with theoretical work in education and psychology. His research at the Institute of Scientific Education, the Institute of Nationalities and the Institute of Polytechnical Education was enormous in volume and of great importance. During the civil war and the period of foreign intervention, he produced books such as *The Labour School* (1919) in two volumes, *The Reform of Science* (1920), and *An Outline of Scientific Psychology* (1921). Between 1918 and 1930 he wrote over 100 works, including the first textbooks for schools and higher educational establishments.

After the publication of the well-known decree 'On Pedological Distortions in the People's Commissariat of Education System' (1936), many of his theoretical propositions were subject to severe criticism, going as far as the complete denial of the positive significance of his practical and theoretical work.

For the last ten years of his life, Blonsky worked at the Institute of Psychology, where he directed the thought laboratory and trained specialists in psychology.

He died on 15 February 1941.

Blonsky's psychological views

In resolving educational problems, Blonsky made use of psychology, to which he devoted a great deal of theoretical and experimental research. He was the first psychologist to demonstrate the need to give scientific psychology a Marxist trend.[3] It was only after heated discussion and by no means instantly – recalled A. A. Smirnov – that the basic tenets of dialectical-material philosophy concerning the psyche as a property of highly organized matter, a function of the nervous system and a product of the brain, and concerning the social conditioning of the personality, gained the upper hand and received general recognition. Fierce battles had to be fought to defend these positions by the pioneers of Soviet psychological science, Blonsky and Kornilov, who were the first to raise the banner in the struggle to create a Marxist psychology. 'Their historical services to Soviet science are great and unforgettable'.[4] Blonsky was among the first to oppose idealistic psychology, applying Lenin's theory of reflection to the study of concrete psychological questions, primarily memory and thinking. The genetic or historical principle, on which Blonsky based his investigations, dominated the field for many psychologists in the 1920s.

While mechanistic and biologistic tendencies are discernible in Blonsky's early psychological works, an effort to counter vulgar sociological and mechanistic views clearly emerges in *Psychological Essays* (1927). In these, he criticizes American psychologists who attempted to explain all sociological problems from a purely psychological point of view. Noting the close link between psychology and sociology, Blonsky considered that this link parallels the interrelationship between psychology, physiology and biology. In order to progress, he claimed, psychology must draw upon comparative anatomy, physiology and the history of the development of mankind. His notion of the link between psychology and other sciences is not without significance today. At the same time, he opposed the substitution of biology and physiology for psychology, calling this process an 'over-simplification' and drawing attention to the mistaken tendency to confuse psychology with sociology.

> Nevertheless [he wrote] this often happens. What is published in the United States, for example, under the heading of 'social psychology' is nothing more than a construction of subjective psychological sociology, i.e. the replacement of sociology by psychology. We should therefore approach attempts to create a social psychology with extreme caution, so as not to produce a pseudo-sociology here instead of psychology.[5]

Blonsky attached great significance to practical methods of scientific psychological investigation. He stressed the importance of observation and experiment, and was among the first to advocate the investigation of mass psychic phenomena by using mathematics. 'Yes,' he said, 'we who long ago discovered America still have a long way to go before we discover the "central link within ourselves" . . . we have still to discover "social man" and his links with the environment, and not by abstract reasoning but by mathematical formulae'.[6]

Blonsky was influenced by Pavlov's teachings concerning conditioned reflexes when considering such psychic phenomena as habit, association, etc. However, he was far from over-estimating Pavlov's importance, particularly in the 1930s. It was this fact, according to some specialists, that linked him with other psychologists who did not adhere to the Pavlovian doctrine of the natural science basis of psychology and pursued their researches independently of it.[7] We find the explanation elsewhere. Towards the end of his life, Blonsky came to realize that the Pavlovian physiology of higher nervous activity could not by itself explain the neurophysiological mechanisms of mental phenomena. New research was needed to go more deeply into the physiological mechanisms of the psyche, to connect them with blood chemistry, the activity of the endocrine glands and so on.

We came to this conclusion on account of his psychophysiological writings, in particular the article 'Change in the Alkalinity of Saliva in Relation to Change in Mental State', in which he sums up his research into changes in the alkaline radical (pH) of saliva as a function of the activities being carried out by the experimental subject, such as dreaming or allowing the mind to wander, or solving complex mental problems. Blonsky's position in this respect is supported by psychopharmacological research on biochemical mechanisms, the role of humoral factors and the endocrine system in mental activity.

In his books *Memory and Thinking* (1935) and *The Development of Thinking in Pupils* (1935), and also in his articles about the psychology of proof and its characteristic features among children, the problems of involvement in movement, practical activity and thinking in relation to perception, and the psychology of desire, Blonsky dialectically examines the processes of memory, perception and will in relation to peoples' actual activities, formulates a genetic or 'phasic' theory of memory, and shows the internal connection of memory with thinking and speech. Memory, by rising to a higher stage in connection with the development of thinking, draws closer to thinking. At every stage in life, Blonsky noted, we can observe this connection and the transition of memory to thought. In fact, he maintained, not only is memory a support of thought, but thought, when it reaches a certain stage in its development, begins to exert an ever greater influence on memory, becoming its support. The influence of thought on memory can be seen in memorization and recollection, which at the highest stage of memory, by drawing close to thought, actually become thought.

Blonsky started from the dialectical principle of the interconnection of perception, memory, thought and speech, and this principle was widely applied by him in the study of the processes of understanding and assimilation. Understanding, he used to say, requires knowledge of various kinds that are combined in such a way as to make sense of the whole. Understanding does not simply mean knowing, but knowing what and why. He thoroughly investigated the process and stages of understanding. From the standpoint of dialectical materialism he also tackled the problem of assimilation, demonstrating how perception, memory, thinking and speech are mutually related in assimilation at different stages of development. He delved particularly deeply into the part played by thought in assimilation.

He was the first Soviet psychologist to carry out experimental research on the process of understanding and set the study of this problem in educational psychology on the right track. He made a detailed analysis, from a logical standpoint, of the way schoolchildren think. He also carried out a comprehensive in-depth study of the way in which judgements of various kinds (problematical, hypothetical and disjunctive) and conclusions, as well as the characteristics of proof, take shape and develop among children. Commendably, he never, as a researcher, separated the development of memory, thought and other mental processes from the overall development of the human being.

In the 1920s and 1930s, Soviet psychology made use of Blonsky's ideas concerning the application of the materialistic approach to mental phenomena, using objective research methods and linking psychology with life. But his psychological work is of more than historical interest. His work is a well-developed system enabling us to understand the complexities of human mental activity and to understand what can be employed to solve educational problems and how to do it.

General educational issues

It would be difficult to name a field of education in which Blonsky was not active, since his scientific interests ranged from pre-school education to university-level teaching, in the same way that he vigorously propounded the idea of a connection between school and life, and devoted considerable attention to teaching methods, vocational training and polytechnical education.

Before the October Revolution he regarded education as an empirical science, discounting its links with politics and economics. Considering education to be the development of the child's innate and natural abilities, he supported the biogenetic principle. In defining the goal of education he followed in the footsteps of Pestalozzi and Fröbel who derived it from the child's own nature. His educational views in the pre-Revolutionary period nevertheless had progressed in favour of a new school of life, in which pupils did useful work and became self-reliant.

Insisting that education should be based on the latest advances in the study of human nature by the social and natural sciences, he posed the question of the part played by heredity in the shaping of the personality. He himself, however, assigned a decisive role to education. Human development, he said, is the product of spiritual values such as science, art and religion. 'Education humanizes the pupil by means of values – in the literal sense of the word'.[8]

It should be noted that education and development are not the same thing. The concept of 'education' is narrower than that of 'development', although education is one of the factors that contributes to development. It should, according to Blonsky, equip pupils with the knowledge they need in the struggle for existence. 'Only through education', he claimed, 'can a person become a true human being'.[9]

He was the source of many fruitful ideas in the educational literature of the Soviet period. His views on the influence of the classical educational legacy on the development of education are of considerable interest. It was necessary, he stressed, to make critical use of the ideas bequeathed by the great educators of the past. Instruction in the history of education could provide a sound basis for the study of a systematic course on educational science. He believed that the classical systems had firmly established the philosophical foundations of education. His own publications reveal an interest in certain educational theories current in Western Europe and the United States (particularly those of Dewey and Scharrelmann).

He wrote a number of textbooks on education. The year 1916 saw the publication of his *Teacher-training Course*, which was twice re-issued. His *Educational Science*, which first came out in 1922, ran to seven editions and was the standard textbook for higher teacher-training establishments.

The characteristics of particular age-groups of children occupy a significant place in Blonsky's writings on educational psychology. In the 1920s he based the division into age-groups mainly on biological factors that were entirely anatomical and physiological (the development of teeth and endocrine glands, blood composition, etc.). A purely biological approach is clearly at work here. Nevertheless, he firmly maintained at a later stage that 'the characteristics of every development stage must be composite: not just one factor, but a distinctive combination of factors is characteristic of a particular age'.[10] He was won over by the idea of the integral study of children, making wide use of advances in education, psychology, physiology and biology in his researches on age-group characteristics. Since then, psychology, genetics and educational science have made great strides, yet the integral study of the child that Blonsky so desired has still not been organized as it should, so that his researches in this respect are of unquestionable value.

In his enthusiasm for the integral study of the child he turned to pedology. In the books he wrote in the 1920s (particularly during the first half) he regarded children at an early age as instinctive and emotional beings. Among children, he wrote, the need for society arises only in the final stages of the pre-school age. Towards the end of the 1920s, his views regarding children and the factors which shape personality changed. He placed more emphasis on the role of education in the mental development of children. For example, in his booklet *Difficult Pupils* (1930), which points to a link between intelligence and knowledge, he observes: 'Intelligence depends most of all on living conditions and education and least on heredity.'[11] Similar views can be found in subsequent publications up to 1936. 'Without education and instruction' – he writes – 'children cannot develop. No innate or inherited characteristics can create a competent and fully developed human being without suitable education and learning'.[12]

Much later, Blonsky's ideas about the mental development of children were corroborated by the researches of Soviet psychologists. The findings of these studies demonstrate the important role of learning in the development of a child's motor system and perception (A. V. Zaporozhets et al.) in working out ways of memorizing and recollecting (A. A. Smirnov, P. I. Zinchenko et al.), and in the shaping of intellectual activities and processes (N. A. Menchinskaya, P. Y. Gal'perin, D. B. El'konin et al.), and papers on this were presented at the eighteenth International Psychological Congress in Moscow.[13]

In his studies of age-group characteristics, Blonsky collected a great deal of material on the mental life and the physical and socio-political development of schoolchildren. His observations on school-age children are still of particular interest to us today.

Rejecting the claim of Western educationists that children are apolitical, he maintained that even young schoolchildren in fact had marked political leanings. Blonsky had a negative reaction to educational science and psychology describing the teenage years as 'catastrophic' – a period of 'severe crisis' — based on the writings of specialists like Bernfeld, Bühler, Stern and Hirschfeld, who ascribed all teenage characteristics to the specific phenomenon of puberty. Such 'pan-sexualist theories', he said, do not correspond to reality. 'To derive the whole social life of the adolescent from his search for a Gretchen is an example of sentimental and romantic theorizing which there is probably even no need to criticize in detail, so flagrant is the contrast with reality'.[14] At the same time he considered it essential to take into account the teenage characteristics connected with puberty.

The year 1935 saw the publication of *Essays on Child Sexuality,* the first serious study of sexual development and education in the USSR. It contains such matters as the sexual experiences of boys and girls of different ages, the influence of childhood sexual experiences on adult sex life, the psychology of love, first love, etc. He states that the social environment, supervision and instruction have a large part to play in sexual maturation. Puberty, in his view, is an important but not the major factor in development. He attached great significance to the child's growing strength, observing that the teenager's physical maturity is matched by increasing intellectual and social maturity.

Blonsky devoted considerable attention to the goals of education. In most of his works written during the Soviet period, he tackled this problem from a Marxist standpoint, constantly stressing the role of society, the community and work in the education and fulfilment of children and adolescents. According to him, the balanced development of the human personality could be fostered by combining education of the mind with aesthetic, physical, moral and work training, and polytechnical instruction.

One of the organizers and theoreticians of the new socialist school, he maintained that contemporary education does not consist of vocational training, where the adolescent learns a trade, but of 'polytechnical' training, which provides all-round scientific and industrial skills providing access to the world of contemporary culture.[15]

A single polytechnical school, combining knowledge with action and instruction with skill, would be a school of will and intelligence, shaping the character and forming the child's mind. A major contribution would be made by industry which, as Blonsky put it, would help to link knowledge with action by providing social training.

Blonsky believed that the struggle for a new kind of school would be long and arduous. The new school would take much more effort to achieve than all the rest. 'But if we finally win through to it, the people will have everything they need to celebrate their final and most decisive victory.'[16]

Basic problems in teaching

Blonsky's educational legacy is rich in ideas about teaching, particularly about the cognitive activities of pupils, the development of thinking and memory, and the conditions for the effective assimilation of knowledge, skills and habits. Among his solutions to a number of problems concerning educational content and methods, one outstanding achievement was the curriculum he devised for Soviet schools at the time of their original creation and early development.

Blonsky worked hard to free curricula from the abstract, dogmatic, religious and moral subjects that had predominated under the old order. In educational content he gave pride of place to the natural and social sciences, which underlie the materialistic outlook, and attempted to approach every discipline from the standpoint of its contribution to the preparation of pupils for working life.

For him, the chief requirements of educational content were a scientific basis, an ideological and political bent, a link between school and life, and consideration of the characteristics of particular age-groups and individuals. When devising a curriculum, he made a special effort to relate science to the subjects taught at school; he was therefore in favour of everything that was new and progressive in the development of scientific thought serving as an inspiration for formal education. It was essential, Blonsky maintained, to give secondary pupils an exact notion of contemporary physics. Believing that pupils take in genuine scientific knowledge more actively and deeply than any of the pseudo-scientific or obsolete knowledge that lingered in the curriculum, he called for a bold espousal of contemporary science. In his view, primary school was an introduction to mathematics, and secondary school a mathematical education. In his book *The Labour School*, he proposed a mathematics curriculum that would stimulate the development of mathematical thinking. To this end, he introduced some algebra in primary school and some higher mathematics in secondary school. This has been a feature of the Soviet curriculum until the present.

Reacting to Lenin's ideas about the scientific organization of work, Blonsky wrote two articles, 'The Alphabet of Work' (1922) and 'The Organization of Work as a Secondary-school Subject' (1923), in which he defined the content of a course explaining the scientific basis of the organization of work. In the latter article, which was highly appreciated by Krupskaya, it is stated that the work process consists of several stages – organizational, implementation and checking – the most important of which is the organizational phase, calling for such qualities as creativity, initiative, judgement, alertness, foresight and the ability to work out what knowledge is required and how to obtain it. It is when a task is being organized that, in his view, the most varied knowledge has to be called on.

Together with Krupskaya and S. T. Shatsky, Blonsky helped to prepare the State Academic Council's curricula, which played an important role in the development of Soviet schools. These curricula were drawn up in the 1920s, a time when experience was still lacking and uncharted courses had to be steered, while confronting great difficulties and, at times, errors. Blonsky himself admitted to such errors. When they occurred, however, he tried to discover their causes and to correct them. Thus he did not support composite curriculum building for senior classes and resolutely declined to take part in compiling curricula by the composite method, which he believed was suitable only at the primary-school level. Nevertheless, for him as for other Soviet educators, the essential shortcoming of composite curriculum building was dislocation in the continuity of knowledge.

Blonsky took great pains to encourage an active and self-reliant attitude among pupils during the educational process. Education, he used to say, called for an active approach and it was best not to 'receive' it but to 'build' or 'make' it for oneself. In this context, his remarks on the stimulation of practical and independent activities to develop cognitive capacity are still of interest today. Blonsky maintained that, being active creatures, children suffer from inactivity, immobility and passive contemplation. By nature they want to be busy. They should be helped to find material enabling independent work to be done so that this propensity of theirs does not lie idle. Even the very best of schools, he pointed out, cannot provide as much knowledge as is needed in life. Classroom teaching, as he put it, is unable to provide pupils with such a quantity of knowledge that they will have no need to obtain more. A person cannot retain all the knowledge he acquired during his schooling. That is why one of the fundamental tasks of the school is to equip pupils with the abilities and skills of self-education.

Blonsky always advocated 'active methods' of instruction. The old system, he insisted, relied on memory rather than thought. The instruction it provided did not stimulate independent thinking. Under the new system, studies had to be made interesting, attractive and capable of satisfying the pupils' intellectual curiosity. One such approach he dubbed the 'experimental method', since in his view it facilitated the active and critical perception of thoughts, and cultivated an inclination to question received ideas and the habit of doing so. At the same time, this method gave pupils the ability to find their way in the world in which they lived and helped to stimulate their creative abilities. Among the merits of the experimental method, Blonsky drew attention to its diversity, in particular the scope for 'experimentation' by the children themselves. This he contrasted with 'demonstration' and the copying of other people's experiments, understood as verifying knowledge already taught in the laboratory. He included regular and systematic observation of natural and social phenomena by the pupils. Another important method that attracted his attention was the 'method of everyday activities', which he regarded as a way of linking theory to practice so that pupils were equipped to solve practical problems.

Blonsky's views on 'active methods' are attuned to contemporary needs since educational science today is, among other things, perfecting active teaching methods that will stimulate independent thinking on the part of pupils.

In the late 1920s, Blonsky spoke out in defence of the project method and the Dalton Plan. At the same time, he cautioned educators against an unrestrained use of the project method and expressed concern at the fact that some of them viewed the Dalton Plan as an educational panacea.

The conditions he considered essential to the learning process were the capacity for work, degree of mental development, organizational ability and willingness to study. At the same time, he classified pupils according to these criteria. His views on difficult children, in particular his advice and recommendations on how to work with them, are still of great interest.

Teachers and their training

Teachers receive considerable attention in Blonsky's writings. He repeatedly stressed the need to train and retrain them. The teacher's task in life was to educate the people who were to build the new society, and to organize and create the school of work. Blonsky was the organizer and an active proponent of the labour school. It was of the utmost importance, he emphasized, that teachers should love children, be close to them and know how to instruct and educate them.

The duties of teachers should include a mastery of their subject and the ability to arouse the pupil's interest in it, a knowledge of educational methods and techniques, an ability to teach pupils how to think, a knowledge of the characteristics of different age-groups, concern for the children's health, and a contribution to the shaping of their convictions and the development of high moral principles, aesthetic awareness and discernment. Hence Blonsky was in favour of combining the functions of education and instruction in a single person, namely the teacher.

As a member of a team, the teacher, in Blonsky's view, had to be supported in his work by the teaching body and bear in mind its educational role. While noting that children needed educational guidance, he frequently spoke out against the 'aberrations of school management' as seen in attempts to organize it without the help of an educationist.

Teachers should constantly improve their knowledge and skills, and here, as Blonsky emphasized, self-education comes into its own. Teachers, if they do not study, are not teachers; before cultivating the minds of children, teachers should first cultivate themselves. Without self-education and creative development it is impossible to teach.

Blonsky played an active part in the training of teachers. In the early years of the development of Soviet schools he headed the Academy of Socialist Education. This was a new kind of higher educational establishment, which trained some 4,000 educational workers. Its goal was to train politically active people capable of acquiring knowledge by themselves.

As the Director of the Academy of Socialist Education, Blonsky emphasized labour training for teachers by involving them directly in working activities. From their first year, students were familiarized with factories, workshops, museums and all the sights of Moscow and its environs. Almost simultaneously, practical courses began in the various branches of working life. Students worked directly on the shop floor and in laboratories and studied various kinds of agricultural work.

Blonsky's pioneering activities at the Academy, which took the form of production work in industry and agriculture, obtained the approval and support of Krupskaya.

> During that time [she recalled in 1929] Comrade Blonsky and I thought deeply about how to train contemporary teachers with a knowledge of production, the countryside and the factory. Comrade Blonsky made it the practice in the Academy of Communist Education for students to spend their first six months working in industry, and not as engineers or lecturers, but on the shop floor. This left a deep imprint on all their work. There were some interesting reports on their work in factories.

At the Academy, students were given everything necessary to provide them with a good training for teaching. Considerable emphasis was placed on art, music, recitation and so on. All students received artistic training provided at the Academy.

The Academy attached importance to teaching practice, which was active and compulsory. Students in the pre-school faculty worked in kindergartens, while those in the school faculty worked in the Academy's own school. They also did practical work in children's homes and reception centres, where they worked with homeless children. Educational work with the homeless was intimately linked with educational theory, child health and psychology acquired at the Academy.

Thus the Academy provided training that was sound for its time in general, vocational and polytechnical education. It produced a large number of teachers specializing in pre-school training, school education, political educational work and the organization of the national education system. There is no questioning the value of what was done in this regard by Blonsky.

Blonsky was no bookish theoretician, but a teaching enthusiast and a committed, forward-looking protagonist of popular education. His works are among the most treasured of Soviet psychology and educational science.

Notes

1. P. P. Blonsky, *Izbrannye pedagogičeskie proizvedenija* [Selected Works on Education], p. 43, Moscow, Isdatel'stvo APN, RSFR, 1961.
2. P. P. Blonsky, *Moi vospominanija* [My Memoirs], pp. 173–4, Moscow, 1961.
3. P. P. Blonsky, *Reforma nauki* [The Reform of Science], p. 34, Moscow, 1920.
4. A. A. Smirnov, 'K 50-letiju sovetskoj psihologii' [Commemorating Fifty Years of Soviet Psychology], *Voprosy psihologii* (Moscow), No. 5, 1967, pp. 13–14
5. P. P. Blonsky, *Psihologičeskie očerki* [Psychological Essays], pp. 147–8, Moscow, Izdatel'stvo, 1927.
6. P. P. Blonsky, *Izbrannye psihologičeskie proizvedenija* [Selected Psychological Works], p. 53, Moscow, Prosveščenie, 1964.
7. Cf. A. A. Shein, 'P. P. Blonsky kak psiholog' [P. P. Blonsky as a Psychologist], *Voprosy psihologii* (Moscow), No. 3, 1964.
8. P. P. Blonsky, *Kurs pedagogiki* [Teacher-training Course], p. 67, Moscow, 1916.
9. P. P. Blonsky, *Vvedenie v doškolnoe vospitanie* [Introduction to Pre-School Education], 2nd ed., p. 7, Moscow, 1917.
10. P. P. Blonsky, *Pedologija* [Pedology], p. 51, Moscow, 1934.
11. P. P. Blonsky, *Trudnye škol'niki* [Difficult Pupils], 2nd ed., pp. 45–6, Moscow, 1930.
12. Blonsky, *Izbrannye pedagogičeskie proizvedenija,* op. cit., p. 443.
13. Cf. XVIII Meždunarodnyj psihologičeskij kongress. Obučenie i umstvennoe razvitie [Eighteenth International Psychological Congress. Education and Mental Development], Moscow, 1966.
14. Blonsky, *Izbrannye pedagogičeskie proizvedenija,* op. cit., p. 492.
15. Ibid., pp. 226–7.
16. P. P. Blonsky, *Trudovaya škola* [The Labour School], p. 48, Moscow, 1919.

BOUTROS AL-BOUSTĀNĪ

(1819–83)

Khalil Abou Rjaili

Dominated by the Ottoman Turks since the beginning of the sixteenth century, the Middle East experienced a genuine cultural renaissance from the middle of the nineteenth century onwards, despite the upheavals which disturbed it during that period.[1] The renaissance was brought about by the links of trade, politics and culture between East and West, which, although they had existed for some time already, became really profitable only during the last century.

The pioneers of the cultural renaissance sought first of all to promote the use of Arabic as the national language, long neglected by the Ottoman Turks, and to make it a suitable vehicle for communicating the new knowledge which underlay the technical and social progress of European countries. The desire to convey this knowledge to their peoples naturally impelled the pioneers to give the question of education special prominence in their activities, convinced as they were that the progress of the peoples of the Middle East would largely depend on the educational attainments of their citizens.

One of the pioneers who turned their attention to the problems of education is Boutros al-Boustānī (Lebanon), who has rightly been called the 'Master' and 'Father of the Renaissance'.[2] Although he left no specific works setting out his educational theories, they are nevertheless to be found in most of his published works which deal either with traditional education as provided by schools or with the broader education that comes from reading, travelling or membership of specialized associations. On the basis of these scattered ideas, it would seem possible to reconstruct al-Boustānī's educational theories, too often neglected by researchers who have dwelt only on the patriotic, political, social and scientific aspects of his work.[3]

The place of education in al-Boustānī's work

Education is the keynote of al-Boustānī's work. Education is the instrument *par excellence* for forming the human mind and saving people from 'ignorance, the cause of all the evils afflicting the East'.[4] It is the means whereby the seed of the idea of union is sown in young people's minds, so as to develop and prepare them for the task of building a united nation founded on strong principles which are resistant to religious passions.[5] Finally, it is the only means of combating feudalism[6] and bringing about technical and political changes in society by peaceful means.[7] 'Master Boutros', Michaïl Sawaya writes, 'acted throughout his life in response to an inner voice which repeatedly told him: you were born in this century to carry out reforms, to construct and to give'.[8] For him, reforming, constructing and giving came together in education, which alone could help to reform society.

The source of al-Boustānī's educational theories

It is impossible to arrive at any exact idea of a thinker's ideas without some knowledge of the social, political and cultural context in which he or she lived and wrote. We therefore think it useful, before going on to analyse al-Boustānī's educational ideas, to recall the fact that the nineteenth century was a time of much agitation in the Middle East, which shook the existing social, political, cultural and economic structures to their foundations.

Al-Boustānī asked himself this question: Why do the citizens of one and the same country, 'who drink the same water, breathe the same air and speak the same language, kill and destroy one another?'.[9] In his opinion, the cause of all these evils was ignorance, the source of discord and religious fanaticism, which made the citizens of a country 'easy playthings' in the hands of foreigners who sought to divide the nation so as insidiously to rule it.[10] Hence the need to educate the citizens in order to put an end to discord and found a nation whose strength lay precisely in its unity.[11]

Al-Boustānī's educational theories are, then, the result of profound thinking about the general situation of the country, and they rest on a conception of what constitutes a nation or a society which he augmented and developed throughout his life.

He taught that human beings are social creatures who cannot live in isolation since they need other people in order to survive. People who live together in a community seek to form a government in order to ward off external and internal dangers. The government is elected by the people and must place itself at their service. The government draws its strength from the 'spirit of the age', that is, the corpus of principles that direct the course of nations and that take their origin in the work of scholars, thinkers and national leaders. How is the government to interpret 'the spirit of the age'? This is a task for scholars, thinkers and the people at large. However, if the people are to carry out this task, on which their lives and prosperity depend, they must be educated.[12]

These views were the starting-point for all al-Boustānī's work on social and national questions. He thought that the ultimate human aim was to found a nation. If the nation were to live and thrive, people must be 'enlightened' about all the principles that made a nation strong and worthy of respect, and this could not be achieved without education, which, as we have seen, is an integral part of al-Boustānī's social philosophy.

Al-Boustānī's educational theories

In setting out his ideas, al-Boustānī used not one, but several terms, depending on circumstances or the different shades of meaning that he wished to express. For example, when he spoke of people's education in general, he employed the term *ta'alim*, which means 'teaching',[13] but when he addressed himself to the nation to exhort it to widen its field of knowledge, he employed either the term *tahsīl al-'ulūm* (the learning of knowledge) or the term *tatqīf* (culture). And when addressing the élite, he often employed the expression *nashr al-ma'ārif* (to spread knowledge).[14] However, in all these terms or expressions, which he employed on different occasions, the essence of his meaning was one and the same: to educate the citizen. The term *Tarbiyya*, which means 'education' or 'upbringing', is used by al-Boustānī to refer exclusively to the activity exercised by parents in bringing up their children in the family.[15] So we find that the terminology in which these pedagogical ideas are expressed is somewhat different from that which is current nowadays.

THE NEED FOR EDUCATION

Education is a human necessity, since

> any human being, as soon as he comes into the world, is entirely in the hands of other people. That being cannot provide for his own needs or understand what is happening around him without the help of other people. He is totally unable by himself to discern what is beneficial to him and what is harmful. If, at this stage, the human being is left to his or her own devices he will inevitably perish, since he has as yet insufficient physical strength to withstand the difficulties of life, and his intellectual capacities are still in darkness and unable to guide his steps.[16]

He is concerned here, in other words, with the socialization of the child. However, such socialization can be achieved only by and within society itself. Thus, al-Boustānī wholly rejects the possibility that a human being might attain knowledge by his or her own efforts, without the help of society, as was taught by the Andalusian philosopher Ibn Tofayl in the twelfth century, in his philosophical tale *Hayy ben Yaqzān*.[17]

LEARNING

According to al-Boustānī, the human being acquires knowledge gradually through imitation, experience and judgement. We acquire knowledge of the material world through our senses and our intellect, establish relationships between objects perceived by our senses and form concepts. Life in society teaches us about the customs of social life so that we can learn to conform to them. This learning process takes place under the supervision of society and through the personal effort that each human being makes in order to succeed in it. The predisposition to learn is not the same for all people: some are very quick to learn, whole others are less so. What is the reason for this difference? It arises first of all from the particular make-up of the individual, whereby some are more disposed than others to acquire knowledge; it is also a consequence of the climate, which makes some people more gifted for the acquisition of knowledge than others; finally, it is to be explained by the socio-economic environment in which the person lives, so that children from a cultured background learn more easily than children from a disadvantaged background.

THE CONDITIONS FOR LEARNING

Certain conditions must be fulfilled if the process of learning is to achieve the results expected by society.

The first condition is that there must be both individual and social motivation. If there is no motivation, it is difficult for the human being to learn, since his or her intellectual capacities remain dormant. Human intelligence is prepared to exert itself only if the end that it pursues is likely to provide greater pleasure than the effort required. It is, therefore, motivation that must guide any kind of learning.

Second to motivation is the personal effort needed to acquire knowledge. Nothing can be achieved in life without sacrifice, and the acquisition of knowledge calls for the renunciation of any action that may stand in the way of acquiring it. In al-Boustānī's opinion, while knowledge and vice cannot be reconciled, knowledge and virtue are complementary, in that virtue is a necessary condition for human beings, encouraging them to master knowledge and persevere in their efforts.

Freedom, whose essential function is to create a climate in which intelligence can flourish, is also a necessary condition for the acquisition of knowledge. If intelligence is enslaved, that despotism brings ignorance, because it kills motivation and effort.

THE CONTENT OF EDUCATION

What should be learned? Al-Boustānī did not define the content of education. On several occasions in his addresses and articles he exhorted his fellow citizens to learn all the 'different kinds of knowledge required by the spirit of the age'.[18] By this he meant all the accumulated knowledge available at that time. It was, moreover, in accordance with the same principles that he embarked on his project to compile an encyclopedia.

In the 'Discourse on the Education of Women', however, al-Boustānī outlined the knowledge that women in particular should acquire. He claimed that women should know everything that would help them fulfil their social function with ease and make them worthy to take their place in a civilized society. Accordingly, he listed in order: religion, the mother-tongue, reading, writing, the science of bringing up children, domestic science, geography, history and arithmetic.

The brief outline indicates that he saw the content of education as essentially functional: individuals must learn everything they need in order to function properly as members of society.

THE METHODS OF LEARNING

Methods for facilitating learning are many. Al-Boustānī lists the following:

School. Al-Boustānī founded the 'National School' in order to show how this institution should be used for the acquisition of knowledge. In organizing it he drew on both his experience and his convictions, as we shall see.

Talks and lectures are among the 'major and best methods' of transmitting knowledge. In his opinion, they are most effective when organized on a regular basis by clubs or cultural associations.[19] Al-Boustānī himself often made use of this method through the scientific associations he founded between 1847 and 1876,[20] in his National School, where he called all the students together once a week in an assembly in order to give them advice and, finally, in the Evangelical Sunday School over which he presided for twenty years and where he preached every week.

The information media, such as national and foreign newspapers and specialized magazines, which help to acquaint readers with the most recent advances in the human sciences.

The last methods of learning consist of *travel* inside and outside the country and *correspondence* with scholars and research centres in order to keep abreast of the most recent discoveries and to request advice.

Theory into action: the National School

As we have already seen, al-Boustānī's life abounded in projects whose aim was to broaden and deepen the knowledge of his fellow citizens, but his most fruitful project by far in the furtherance of this aim was the National School, founded in 1863.[21] What was the reason for this school, and why was it given this name?

Al-Boustānī had personally witnessed the religious strife that occurred in Bar ash-Sham between 1840 and 1860 and which resulted in massacres among Christians, Druses and Muslims. Distressed by these events, which 'were scattering families, tearing the country apart and destroying it', in September 1860 he appealed to the citizens to 'bury their differences and to awake and unite for the common benefit of the nation'.[22]

This appeal was followed by ten more, all of which were intended to establish a national doctrine that would rescue his fellow citizens from religious fanaticism. Once his appeals had been made, al-Boustānī set himself the task of founding an institution which would embody his nationalist beliefs. In his opinion, education should be provided by the state, and should no longer be regarded as a duty of the Church towards the faithful, as had been decreed by the Maronite Synod meeting at Louaïré in 1736; it was necessary to separate Church and state.[23] Education would thus become national and would no longer be denominational. He was convinced that a school provided the most fertile ground for 'sowing the seeds of union and love in young people whose souls are still pure. The seeds will grow with these young souls, and it is the nation that will reap the harvest.'[24] He gave his National School the following motto: 'Patriotism is a part of faith'. The school was based on national principles and was open to all without distinction of race or creed. It differed in this respect from the other schools of the day, which were mostly denominational and reserved almost exclusively for the believers of the community that ran them. There were, for example, Maronite schools, Greek Catholic schools, Greek Orthodox schools, etc., in addition to the schools of the foreign missions of the Latin, Anglo-Saxon and Slav countries which were mouthpieces of propaganda for their countries of origin.

In the midst of this educational chaos, al-Boustānī described his own creation in these words:

> The 'National School' is located in one of the best quarters of Beirut; its buildings are among the finest in the city and the situation is a healthy one. The school is surrounded by extensive grounds, planted with leafy trees which provide an agreeable setting for the students' daily lives. . . .
>
> The languages taught are Arabic, Turkish, French, English, Latin, Greek and any other language if it is requested by at least six students. . . .
>
> The school welcomes students from all religions and all races without distinction. It respects their beliefs and compels no one to embrace a religion other than that of his parents.[25]

This description emphasizes some aspects of the school, but omits others which are equally important and which are to be found in the school rules, drawn up by al-Boustānī himself, and whose main points are as follows:

> The school is not a denominational school, but a national and secular school which admits students of different religions and races without distinction or discrimination.
>
> The school recruits its teaching staff from among qualified candidates, taking no account of their religion, race or nationality.
>
> Within the school, the students, teachers and headteacher of the school and his family are on an equal footing; they eat the same food together at the same table.
>
> The number of students in each class must not exceed the capacities of the teacher.
>
> The subjects taught at the school must be in accordance with the 'spirit of the age'.
>
> The school is universal in character and, as a rule, teaches any known language if requested by at least six students; but it pays special attention to the Arabic language, since this is the language of the country and since the success of the students in any field depends on it.
>
> The school must enjoy complete independence.[26]

These regulations highlight four of al-Boustānī's key ideas:

1. Secularism: the school is no longer denominational, but secular, based on national principles accessible to all citizens, whether they be students or teachers.
2. Equality among all those belonging to the school: students, teachers and the headteacher enjoy the same rights and have the same obligations.
3. Freedom is essential in the quest for learning.
4. The teaching curriculum must answer the real needs of the country.

Commenting on the rules, Youssef K. Khoury wrote:

> Al-Boustānī wished his school to be entirely national in character, so that the students attending it would not feel like foreigners in their own country and so that they would benefit from the teaching which they received at school. Moreover, al-Boustānī made a great effort

to cultivate patriotism in the hearts of his students so that they would be loyal to their country and willing to sacrifice themselves for it if need be.[27]

Al-Boustānī kept to these rules throughout the period when his school was in operation, from 1863 to 1878. The school was indeed attended by pupils of different religions, races and nationalities. Besides the languages mentioned above, teaching was provided in the various fields of knowledge then known, such as arithmetic, geometry, history, geography, commerce, civil law, Islamic law, the physical sciences and medicine.[28] The school textbooks were compiled by al-Boustānī himself or by the teachers. These textbooks were outstanding for their simplicity and clarity. In addition, al-Boustānī assembled the students together once a week for a debate on the subjects studied in the school or for guidance on matters of national and social importance.

According to evidence from many sources, the school was a great success and was respected by many important people of the day, for three main reasons:

Al-Boustānī wanted those attending his school to represent a cross-section of the nation. The pupils, in spite of their different religious and educational backgrounds, were to be brothers belonging to a single nation. The differences between them would have no influence on their studies or on their life in society, since they would be the élite of the nation.

His qualified staff, including the earliest pioneers of the Nahda renaissance, enjoyed great prestige among the population.

Finally, the content of the curriculum was directly geared to the real needs of society. The originality of the National School resided in the fact that it was the only school to be based on a national doctrine with secular principles at a time when religious and foreign schools (from the Latin, Anglo-Saxon and Slav countries) were being set up in the country and corrupting young people's minds with their explicit propaganda. It had a major impact on the education system in Lebanon, since it provided a model for a number of national schools that were founded to counteract the religious and foreign schools.

Also worthy of our attention today are the various pedagogical standards that were set out in the rules and which are still valid: staff/student ratios; equality between the teaching staff and the students with a view to creating a family atmosphere in the school; planning of curricula in accordance with the real needs of society.

The significance of al-Boustānī's educational theories is that they continue to be a source of inspiration for Lebanon and for all the peoples of the Arab Middle East. A century after his death, which occurred in 1883, the peoples of this region, and especially the Lebanese people, feel that they could have avoided or overcome many of the problems with which they have been beset since the 1950s if they had remained faithful to al-Boustānī's ideals. Whenever national reform is mentioned, al-Boustānī's educational theories come to mind. As he himself frequently repeated in his speeches and writings, any national reform necessarily includes educational reform: education is the light that shines into people's minds, chasing away the shadows of ignorance, the source of so many evils still afflicting us today.

Notes

1. These included the wars of al-Jazzār, the Pasha of Acre, at the beginning of the century; the military expedition of Mohamad ‘Ali, Governor of Egypt (1830–40); the massacre of Christians by Druses and Muslims (1840 and 1860); the peasant revolt at Kisrawān, led by Tanios Shahin (1858).
2. Al-Boustānī was born in the village of Dibbiyya in the Shuf, in January 1819. He received his primary education in the village school, where he attracted the attention of his teacher, Father Mikhail al-Boustāni, by his keen intelligence. The latter recommended him to the Bishop of Sidon and Bayt ad-Din, ‘Abdullah al-Boustāni, who sent him at the age of 11 to the school at ‘Ayn Warqa, the most famous school of that period, to continue his studies there. He spent ten years there and learned several foreign languages, including French, Italian and English. In Beirut he came into contact with the American Protestant missionaries with whom he worked closely until his death in May 1883. In the social, national and political spheres, he founded associations with a view to forming a national élite and launched a series of appeals for unity in his magazine *Nafīr Sūriyā*. In the educational field, he initially taught in the schools of the Protestant missionaries at ‘Ubey before founding his own National School on secular principles. At the same time, he compiled and published several school textbooks and dictionaries. In the cultural and scientific fields, he published a fortnightly review, two daily newspapers and an encyclopedia, the first in Arabic, though it remained unfinished. In addition to these activities, he began work, together with ‘Ali Smith of the American Mission, on a translation of the Bible, which also remained unfinished.
3. See, for example, the following publications in Arabic: Fouād Ephrem al-Boustānī, *The Master Boutros al-Boustānī*, Beirut, Institut des Lettres Orientales, 1950 (al-Rawāi‘ series); Michaïl Sawaya, *The Master Boutros al-Boustānī*, Beirut, Bibliothèque al-Boustānī, 1963; Jean Daï, *The Master Boutros al-Boustānī*, Beirut, Fikr, 1981; Youssef K. al-Khoury, ‘The Master Boutros al-Boustānī’, unpublished Ph.D. thesis, submitted to the American University of Beirut.
4. This was the precept of all the writers of the Nahda renaissance, quoted by Z. K. Lyvine, *Modern Social and Political Thought in Lebanon, Syria and Egypt*, p. 78, Beirut, Dār ibn Khaldūn, 1978. (In Arabic.)
5. Sawaya, op. cit., p. 78.
6. Loutsky, *Modern History of the Arab Countries*, 8th ed., p. 167, Beirut, 1985. (In Arabic.)
7. Lyvine, op. cit., p. 13.
8. Sawaya, op. cit., p. 33.
9. Boutros al-Boustānī, *Nafīr Sūriyā*, No. 1, 29 October 1860.
10. Ibid., No. 9, 14 January 1861.
11. Ibid.
12. These views are expressed in the articles in *al-Jinān*, a review founded by al-Boustānī on 1 January 1870. The analysis of the content of this magazine is by L. Zulundig, quoted in Lyvine, op. cit., pp. 69–70.
13. See Boutros al-Boustānī, ‘Discourse on the Education of Women, 14 December 1849’, *Actes de l'Association syrienne* (Beirut), 1852.
14. See Boutros al-Boustānī, ‘Introduction. Discourse on Science among the Arabs’, 15 February 1859.
15. Al-Boustānī, ‘Discourse on the Education of Women’, op. cit.
16. Ibid.
17. Ibn Tofayl (1100–85), an Arab scholar from Andalusia, born in the province of Gra-

nada (Spain), and died in Marrakech (Morocco), devoted his life to medicine, mathematics, philosophy and poetry. Among his philosophical works is the philosophical tale *Hayy ben Yaqzān*, in which Ibn Tofayl attempts to reconcile philosophy with religion. Hayy, alone on a desert island, manages by his own efforts and through his own intellectual capabilities to acquire all knowledge.

18. Boutros al-Boustānī, *Discourse on Society and a Comparison of Arab and Foreign Customs,* Beirut, Imprimerie al-Ma'ārif, 1869. (In Arabic.)
19. Al-Boustānī, 'Discourse on Science among the Arabs', op. cit.
20. Al-Boustānī helped to found three scientific associations: the Syrian Association (1847–52); the Syrian Scientific Association (1868); and the Secret Association (1875). He was their true 'spiritual father', who directed their activities towards national ends: the independence of the country, free speech, the opening of schools, etc. It was to these associations that he delivered addresses, notably on the education of women (1849) and on science among the Arabs (1859).
21. See Fouād Ephrem al-Boustānī, *The Master Boutros al-Boustānī*, 2nd ed., p. 75, Beirut, 1952. (Al-Rawāi' series, No. 22.)
22. Al-Boustānī, *Nafīr Sūryā*, op. cit., No. 1, 29 September 1860.
23. Ibid., No. 10, 22 February 1861.
24. Cf. Fouād Ephrem al-Boustānī, op. cit., p. 76.
25. Report written by al-Boustānī and published in his review *Al-Jinān*, Vol. 4, 1873, p. 62.
26. See *Al-Jinān*, Vol. 4, 1873, p. 62; Daï, op. cit., pp. 43–9.
27. Al-Khoury, op. cit., p. 53.
28. Cf. Sawaya, op. cit., p. 37.

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Note. The writings and speeches of Boutros al-Boustānī, either in published or manuscript form, are preserved in the Yafeth Library at the American University of Beirut and are available to readers and researchers.

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MARTIN BUBER

(1878–1965)

Kalman Yaron

Buber's discovery of the world of Hasidism – the impassioned religious movement that swept Eastern Europe in the eighteenth century – has gained him an immense influence in contemporary religious thought. Through the gathering of Hasidic tales, Buber revealed the sources of his own religiosity – the philosophy of an ongoing dialogue between man and God – as described in his classical work *I and Thou* (1923). Christian theologians accept Buber as the leading interpreter of Judaism for the non-Jewish world; many Jews – such as the renowned scholar Gershom Scholem – fault him for being a religious anarchist, while among liberal Jews he is regarded as the outstanding spokesman of Judaism in this century.

There are those who maintain that Buber's teaching 'dwells in the clouds of glory'; that his exalted ideas are reserved for a limited circle of disciples and scholars; that his thought is irrelevant in our pragmatic world. Buber would certainly have opposed the tendency to contain his legacy in a golden cage of admiration. In fact, throughout his life he was not only engaged in his own intellectual ventures, such as philosophy, sociology and biblical research, but he was also preoccupied with the burning questions of his time: the meaning of human existence in the modern world; nationalism; the essence of Judaism; Kibbutz socialism; Zionism; and the Jewish-Arab confrontation.

Buber also dedicated himself, initially, with Franz Rosenzweig (1885–1929), to the monumental project of translating the Hebrew Bible into German. Even his abstract theories – such as the principle of dialogue – were applied to psychotherapy, politics, human relations and education. Moreover, during a great part of his life Buber served as an educator, as well as a leading figure in the Zionist movement. He was also a political activist for the cause of Arab-Jewish co-operation, mainly in the framework of the Ihud (Union) movement, aimed at the establishment of an Arab-Jewish bi-national state in Palestine.

'All real living is meeting'

Buber proclaims that 'in the beginning is relation'. He assumes that the human being is, by his very nature, *Homo dialogus*; that one is incapable of realizing oneself without communion with mankind, with the Creation and with the Creator. The Buberian person can also be defined as *Homo religiosus*, since the love of humanity leads to the love of God, and vice versa. The Divine Presence participates in every genuine encounter between human beings, and rests upon those who establish genuine dialogue: 'Above and below are bound to one another. The word of a person who wishes to speak with a human being without speaking with God is not fulfilled; but the word of one who wishes to speak with God without man goes astray.'

Dialogue is founded on mutual response and responsibility. Responsibility exists solely where there is real response to a human voice. Buber's teaching about the responsive word always carries a strict reference to a reality to be confronted and dealt with in the 'lived life'. This is also true in regard to the 'word of God', which should not be conceived just as a theological event but as a real presence to be responded to. Buber asserts that the Bible testifies to an ongoing dialogue between the Creator and His creatures – an encounter in which man is a genuine partner, able to make himself heard.

In his renowned work *I and Thou,* Buber points to the twofold attitude towards the world: the I–Thou and the I–It relationship. Neither the I nor the Thou lives apart, but exists only in the I–Thou context, which precedes both the I and the Thou realm. Similarly, neither the I nor the It exists separately, but only in the realm of I–It. The absolute I–Thou is only valid in regard to God – the Eternal Thou – and cannot be fully realized in other areas of life – including human relations which frequently tend to sink into the I–It sphere.

The real determinant of I–Thou and I–It attitude toward the world is not conditioned by the nature of the object, but by the way in which one relates to that object. A human being is transfigured into authentic life only by entering an I–Thou relationship, therewith confirming 'the otherness of the other'. Contrary to the sphere of I–It, the I–Thou relation demands total commitment: 'The primary word "I–Thou" can only be spoken with one's whole being, whereas the primary word "I–It" can never be spoken with the whole being'. At the centre of dialogue is a meeting between two sovereign persons, who do not intend to impress the other or to make use of him. Buber comments that one can live without dialogue, but the person who never met a Thou is not really a human being.

However, one who enters into the realm of dialogue takes upon himself considerable risk, since the I–Thou demands a total exposure of the I, which may be entirely denied and rejected.

While the subjective I–Thou reality exists in the terrain of dialogue, the instrumental I–It relationship is anchored in monologue, which transforms the world and mankind into objects.

Within the monological domain, the other is regarded as a thing among things, experienced and used, whereas in the dialogical sphere the other is met, acknowledged and addressed as a particular being. Buber defines monologue as *Erfahrung* (a 'surface' experience of the external attributes of the other), or as an *Erlebnis* (an insignificant inner experience), in contradiction to *Beziehung,* genuine relationship which occurs between two human beings.

Buber opposes both the extreme individualistic approach, which perceives man only in relation to himself, and the collective outlook, which does not at all see the individual but only society. He believes that a person can only live in the full sense of the word within the interhuman sphere: 'on the narrow ridge where I and Thou meet; in the realm of between'. The Buberian 'betweenness' should not be considered as routine communication or as a subjective happening, but as an existential reality, an ontic event which actually occurs between two human beings.

The educational relationship

Genuine dialogue is an unusual phenomenon, since the I meets the Thou merely by grace. Buber assumes that one can meet the other by 'making him actually present' – by entering into his 'dynamic centre'. 'Meeting' a fellow human being is not at all synonymous with empathy. Empathy, according to Buber, means the transposition of oneself into another being, thus losing one's own concreteness; while dialogue is the opposite of self-limitation: it is the extension of the I. This attitude contradicts the approach of prominent educators such as Johann Pestalozzi (1746–1827) and Janucz Korczak (1878–1942), who empathized with their educants to the point of self-denial. While Pestalozzi devoted his whole life to the well-being of children, Korczak, 'the father of the orphans', followed the children under his care to the Treblinka death camp.

Buber distinguishes clearly between acceptance and confirmation in an asymmetric relationship, such as in the realm of education or psychotherapy. Obviously, education cannot be based upon unconditional acceptance of the pupil as he actually is, but only through affirming his being 'as he has been created to become'. Confirmation is not necessarily identical with agreement, nor does it negate the teacher's task of leading his student in 'the right direction'. Buber remarks that people who are incapable of differentiating between acceptance and confirmation are unable to offer help to those who need their assistance. In his article 'Healing through Meeting' he describes cases in which he had to assist others to find their unique personal direction, even against themselves.

The concept of 'inclusion' in the educational context is one of Buber's major contributions. Inclusion, according to Buber, means the ability to develop a dual sensation among those engaged in dialogue: experiencing oneself and simultaneously perceiving the 'other' in its singularity. The inclusion of a person causes one to 'know' one's fellow human being both physically and spiritually, in the Biblical sense of 'knowing' a lover. Buber illustrates this two-fold sensation of inclusion with an erotic metaphor: a man who caresses a woman who lets herself be caressed unexpectedly senses the contact from both sides, through the palm of his hand, and through the woman's skin. This two-fold event occurring between two human beings is the actualization of love, which is the expression of responsibility of the I for the Thou.

Buber describes the basic conditions needed for communication in asymmetric settings, such as the educational process, as 'an event experienced by two persons in common, in which at least one of them actively participates; [. . .] the active partner of the communion does not forfeit anything of himself and of the reality of his activity'. The hierarchical status between the dominant person and the dependent partner demands not only intimacy but distance as well. Buber assumes that those who become over-involved emotionally with their students (or clients) are doomed to lose their self-awareness and forfeit their professional status. None the less, dialogical moments may be found even in situations of total absence of mutuality. The noble task of the teacher is to be attentive to his students, in order not to 'mismeet' the graced occasions of dialogue, as already noted.

Dialogue requires two basic conditions: sovereign partners and a free choice by both sides to enter into relations. These demands contrast strongly with the educational reality based on the pupils' dependency on their teacher. The schoolroom is characterized by absence of mutuality, being dominated by authority exercised by the teacher upon the young pupils. The inferior status of the pupil leads him to relinquish his own will and accept the choice of the teacher. Moreover, the curriculum is in most cases dictated by the school authorities without taking in consideration the opinion of pupils, and in contradiction to the atmosphere of freedom required by dialogue. Furthermore, the teacher does not select his pupils; similarly not only do the students not choose their teacher but in most cases he is forced upon them.

Despite the apparent hierarchic relationship prevailing in the educational process, Buber claims that the pedagogical realm is entirely dialogical. The lack of mutuality in education can be bridged, according to Buber, through one-sided inclusion by the educator. The teacher must stand simultaneously at the two poles of the education scene: his own and the student's. While the educator is capable of apprehending his student's being, the latter is unable to comprehend the complexity of the teacher's personality. Buber's follower, the great educator Ernst Simon (1899–1988), said: 'the teacher who feels offended by his pupils is a poor educator, not being aware of the fact that he must understand his students while they are incapable of understanding him. Whenever this asymmetric situation is altered the pedagogical reality enters into a new phase, such as friendship or love.'

Buber indicates that the presupposition of dialogue is the setting of a primary distance between oneself and the other. By setting a distance with the surroundings, one allows the existence of independent opposites, thus creating a 'world' to relate to. The distance can either be expanded until turning the other into an object (an It); or narrowed until he becomes an unpredictable Thou. Distance is especially essential for relations characterized by hierarchy. The art of teaching is expressed in the flexibility of the educational boundaries: by setting minimum distance to maintain discipline, and by striving to the maximum intimacy for the promotion of dialogue, essential for genuine learning.

In his article 'Seeming and Being' Buber denounces the false life of those whose existence is not determined by their authentic being, but by the impression they wish to make on the other. Those preoccupied with their own image are totally incapable of listening to their fellow human beings. The educator must be truly present in the classroom. Buber argues that teaching in itself does not educate: it is the teacher who educates, while silent and while speaking, in the intervals between classes and through occasional discourse. But the teacher educates primarily through his behaviour, by his very being, assuming that he is really present and available.

The exemplary educator and the child

The predicament posed by the question 'To what must we educate?' is one of Buber's major concerns. He sees the exemplary educator in the image of the Hasidic leader, the Zaddik, 'who does whatever he does adequately, and whose main teaching is in that he enables his pupils to participate in his life, and thus become acquainted with the secret of his work'. The intimate interaction between the medieval craftsman and his apprentice also serves for Buber as a classical model for the all-embracing influence exerted by the traditional educator, who no longer exists today. He noted that it was only in times when representative human images existed, such as the Christian, the Gentleman, the Citizen, the Biblical scholar, or the Hasid, that one could answer the fundamental question about the aim of education.

Buber defines education as 'the selection of the effective world by a person'. This function is manifest in the educator, whose role is to set order in the chaotic realities of life which overrun the child's soul. Thus, the educator can be described as a 'filter', whose task is to refine the diverse messages arriving from his surroundings. This noble role can only be performed by the educator who comes in person to meet, draw out and form his pupil in a dialogical context. The function of the teacher as a 'selector' stands in contradiction to the 'old' teacher characterized by a passive acceptance of tradition poured from above (symbolized by a funnel), as well as the 'new' education (represented by a pump) which pictures education as drawing forth the static powers of the self.

When all other directions fail, there arises the one true direction of man – the way towards the creative spirit of God. Buber postulates that mankind can only keep the image of God by walking in His ways, by *imitatio Dei* (the imitation of God). In our world of confusion and unease the only way left for a human being is attachment to the attributes of the hidden but not unknown God as described in the Hebrew Bible: 'The Lord is merciful and gracious, long-suffering and abundant in greatness' (Ex. 44:6). Unlike the Christian, who is capable of imitating the life of Jesus, the Jew is confronted with the paradoxical task of imitating the imageless God in his venture to maintain the element of the divine entrusted to him by God. In the final chapter of his essay 'Education', Buber writes: 'Man, the creature, who forms and transforms the Creation, cannot himself create; but every person can expose himself and others to the creative spirit. And he can summon the Creator to save and perfect his image.'

Buber views the modern educator as threatened by the 'passions of the soul': the Nietzschean 'will of power' and the 'Socratic Eros'. The will of power becomes dominant when the traditional authority of the educator begins to decay; Eros appears when supremacy cannot be exercized. While Eros desires to enjoy the other, the will of power is the inclination to control men. Both drives are precisely what education is not: Eros chooses its favourites, while the modern educator finds his pupils before him in a chaotic and non-erotic reality. Also, the will of power of the modern educator cannot be fulfilled, since he has lost his social role as an ambassador of his society who conveys 'the magical validity of tradition'.

Education is conditioned by love rather than by Eros: 'For if God forms the light and creates the darkness, man is able to love both – to love light in itself, and darkness towards the light.' Buber points to the ascetic character of the true educator, who must control his desires for the sake of his pupils. He has the lofty vocation of influencing his pupils through sharing, but not by interfering in, their lives, either by the will of power or by Eros. In the course of educating, the will of power must be transformed into communion, and the Eros refined into concern for the pupil. The constructive forces of the world which the child needs for building up its personality can be transferred only through I–Thou relations.

The child, according to Buber, is dominated by two autonomous instincts – the 'originator instinct' and the 'instinct of communion'. These two (and not the libido or the will of power) are the keys to education. The Buberian originator instinct is the intrinsic drive of the child 'to make things', to form and shape the world. This positive instinct can never become greed, since it is not aimed at having but merely at doing. However, the originator instinct is not sufficient, since it does not lead to mutuality and sharing.

The originator is solitary until somebody takes his hand, not just as a 'creator', but as a creature lost in the world. The task of the genuine educator is to channel the creative forces of the child in the right direction, towards communion.

The 'instinct of communion' is the 'longing for the world to become present to us'. Buber illustrates this desire by describing a child lying with half-closed eyes in the darkness, waiting restively to experience its mother's communion in the face of the frightening night. He comments that a harmonious person can only be formed through trust in communion. Hence, the task of the educator is to channel the child's presence into his own life, into communion.

Buber maintains that 'true freedom is communion', rather than the over-permissive modern education, which came as a reaction to traditional compulsion. He opposes compulsion as expressed in the biblical saying: 'He who spares his rod, hates his son'; yet he also rejects the laissez-faire attitude of modern education. Instead, he recommends the exercise of a modified form of authority and criticism, by 'the raising of a finger' or by 'a questioning glance'. Freedom, which serves as a key to modern education, is just a means and not a goal in itself. The antithesis of compulsion is communion, rather than the unlimited freedom of contemporary education. In contrast to modern egocentric self-fulfilment, Buber points to self-realization as a commitment to social responsibility. Self-oriented freedom, which leaves no space for another human being, condemns the human being to splendid isolation.

Education by and for peace

Buber views himself neither as the bearer of a universal mission to humanity nor as a spiritual guide to his own people. He states that he has no message to deliver; he can only carry on a conversation. Those who expect to receive from him a firm doctrine will be disappointed. In the darkness of the desert one cannot show the way, but only advise people to wait until dawn, when the right path will unexpectedly appear.

Education, writes Buber, means change – change towards the right and desirable direction. Inasmuch as the immature person has not yet achieved his final inner shape he is subjected to accept order and form. However, Buber warns against the teacher's tendency to impose himself upon his pupils, which threatens to paralyse their integral growth. He suggests that the direction of the child's development should not be forced upon it, but carried out in conformity with its own direction. Buber states that God is the God of freedom, who is capable of constraining man but refraining from doing so, even sharing with him His exalted freedom. By surrendering to compulsion one proves unfaithful to the autonomy granted to him.

Buber points to the image of man reflected in Hasidism as an exemplary pattern for Jewish education. The Buberian Hasid is distinguished by ingenuous religiosity, reaching God through love for mankind. The visionary Hasid is endowed with *joie de vivre,* naïveté and simplicity, as opposed to the traditional Jewish scholar, remote from the real world. Along with the Hasid, Buber respected highly the ascetic Halutz, the Jewish pioneer, who devotes his life to the upbuilding of Zion. Buber describes the Halutz as a 'new type of man', motivated by a national and social vocation.

Nevertheless, Buber came to realize that neither Halutz nor Hasid could be perceived as normative examples for Jewish modern education. The mission of the Halutz in the building up of the land for a homeless people ended with the foundation of the State of Israel, and with the strengthening of the particularistic components at the expense of the universal elements. The same can be said about established Hasidism, which according to Buber, degenerated in the course of time. The main challenge for education remained Hebrew or Biblical humanism.

Hebrew humanism, within which Buber sought to anchor Zionism – the movement for Jewish renaissance – is viewed by him as the highest educational value. He envisaged Zionism as 'the path of holiness', as opposed to 'sacro-egoism' of the world. He warned against Jewish chauvinism, maintaining that Israel's behaviour towards its Arab neighbours is not only a political issue, but also an integral part of Judaism itself. Buber claimed that just as anti-Semitism challenges the credibility of Christian principles, thus becoming a Christian problem, so does the Jewish attitude towards the Arabs challenge Judaism, thus becoming a Jewish problem. He appealed time and again to the Israeli Jews to strive to live in peaceful co-existence with their Arab neighbours.

The classical Jewish heritage, 'the strength of living memory', serves for Buber as the main source for Judaism. He based his message mainly on the universal values of the Bible, the great document of Jewish antiquity. He stated: 'What the

Bible teaches with such simplicity and strength, and what cannot be learned from any other book, is that there is truth and falsehood, and that human existence inexorably stands at the side of truth; that there is justice and injustice, and the salvation of mankind lies in opting for justice and rejecting injustice.'

Buber stresses the paramount importance of ethical education: the formation of the 'great character', a person committed to social responsibility. He taught that the knowledge of good and evil cannot be imparted through the instruction of ethics; it can only be transferred indirectly, through the involvement of the teacher with his class. The formation of the ethical personality must be based on the pupil's belief that his teacher is not trying to manipulate him, but is truly taking part in his life. Moral education, which Buber defines as 'a battle for the truth', inevitably bears elements of conflict, which can be dealt with when there is basic trust between the teacher and his pupils.

The Buberian concept of the demarcation line was one of his most important inputs to moral education. He was aware of the fact that life is, by its very nature, inextricably bound with injustice, particularly in matters of communal affairs. In the face of this tragic reality the human being is forced to distinguish constantly between the minimum amount of wrong that his very survival demands, and the maximum good that he must perform in order to preserve his human image. In regard to the tension between the desirable and the actual the human being is asked repeatedly to draw a demarcation line between the imperative demands and the relative possibilities of their fulfilment in daily life. Buber demands that in every hour of fateful decision we should consider how much wrong must be committed to preserve the community, and accept just so much and no more.

Israel's desperate struggle for survival in the biblical land makes the concept of the demarcation line particularly apt. Buber realized that the achievement of the Zionist cause would inevitably lead to a certain amount of injustice towards the Palestinian Arabs; yet he advocated that this evil should be limited to the absolute minimum. Buber was caught in the dilemma of the need to rescue the Holocaust survivors, and the moral imperative to avoid doing injustice to the Palestinian Arabs. Hence, he called for minimizing the potential evil by living alongside the local Arabs and not displacing them. Buber stated: 'We do not aspire to return to our ancient homeland in order to dispossess another people or to dominate it.'

Adult education

In the years 1909–11 in Prague Buber delivered his famous lectures on Judaism, to the Jewish student organization Bar Kochba, whose members wished to rediscover their forgotten heritage. Even in the printed text one can sense his immense rhetorical force in presenting Judaism as an ever-renewed cultural reality of universal significance. This conception of Judaism stood in sharp contrast to Orthodox Judaism which is founded on the strict observance of the Halacha, the Rabbinic Law. Buber's greatest educational achievement was perhaps in motivating two or three generations of entirely assimilated Jews to return to Judaism and to Zion in the context of Biblical humanism.

Buber's outlook of Jewish spiritual regeneration had a great impact on his approach to adult education. Already in 1902, Buber worked out a blueprint of a high school for Jewish adult education based on biblical humanism. Later he prepared a written recommendation to the Hebrew University of Jerusalem to grant adult education a central role in its curriculum. Buber was also involved in the Freies Jüdisches Lehrhaus (Free Jewish House of Learning), founded by Franz Rosenzweig in Frankfurt in 1920. Through the lectures presented within the Lehrhaus on 'Religion as Presence' and 'The World of Hasidism', Buber exerted a powerful influence on German Jewish life during the pre-Nazi twilight, reinforcing Jewish identity and community coherence.

The rise to power of the Nazis brought about a major change in the life of the Jewish community in Germany. Long before the extermination of European Jewry, German Jews were removed from economic and public positions and completely segregated from the cultural life of the country. The spiritual isolation imposed on them demanded a radical reorganization of Jewish life. To this end, in 1933 Buber founded the Centre for Jewish Adult Education, serving as its director until 1938, when he emigrated to Palestine. The centre aimed to reinforce Jewish self-awareness and group solidarity by providing the resources for spiritual resistance to Nazi tyranny. Buber's educational message was not directed toward a return to Orthodox Judaism. He encouraged German Jews to return to the biblical land, for the fulfilment of the great mission, to be 'a light unto the nations'.

From his own experience in Germany (as well as the experience in Denmark during the Schleswig-Holstein conflict in the nineteenth century) Buber learned that times of crisis offer a golden opportunity for adult education. Buber's greatest educational influence was, indeed, exerted during the dark period of Nazi Germany. He illustrated in practice and theory that adult education can present sustenance in times of despair. Following Jewish basic optimism *vis-à-vis* its tortuous history, Buber taught Jews to face disaster without self-deception, holding on to their faith in the Rock of Israel.

After Buber emigrated to Palestine he was active mainly in adult education, along with university duties and political work. His educational work focused on the Jewish collective settlements (the Kibbutz and the Moshav) whose members, engaged as they were in agricultural work, wished to maintain contact with the intellectual world. A number of outstanding scholars from the Hebrew University, headed by Buber, offered extramural seminars to farmers in different parts of Israel. In order to ensure the continuity of this venture, the Institute for Adult Education was established at the Hebrew University (named, after Buber's death in 1965, in his honour).

With the achievement of his physical return and the foundation of the Jewish state, Buber called for a Jewish spiritual revival. He linked the Zionist concept with the idea of justice as envisioned by the Hebrew Prophets: 'Zion shall be redeemed with judgement, and her converts with righteousness' (Isaiah, 1:27). He applied this exalted idea especially to the Jewish relationship to the Palestinian Arabs. In his lectures he warned against Jewish ethnocentrism, recalling the Golden Rule of Rabbi Hillel the Elder: 'Do not do unto thy neighbour what is hateful to thee.' He also discussed at length the significance of the verse 'Love thy neighbour as thyself', explaining that through love of mankind we meet God.

The establishment in Jerusalem of the School for Adult Educators in 1949 was undoubtedly Buber's most important venture in the field of adult education. This school trained adult educators who would cope with the cultural integration of the masses of immigrants flowing into the country after the founding of the State of Israel in 1948. With the establishment of this school, Israel became one of the first countries to offer specialized training for adult educators. The school was influenced by the ideology of the adult high school founded by the great Danish educator N. F. S. Grundtvig (1783–1872). Buber was impressed by Grundtvig's concept of 'the living word', which corresponded to his own principle of dialogue in education. He also adopted the Danish pattern of the boarding school, a living and learning union, consistent with the Buberian concept of a 'spiritual community'.

Many of the school's students were themselves new immigrants, mainly from Islamic countries. The academic staff was composed of outstanding humanists: Gideon Freudenberg, Ernst Simon, Gershom Scholem, Hugo Bergman, Avraham Halevy Fraenkel and Martin Buber himself. The teachers were most responsive to the pluralistic makeup of the student body, relating not only to Western values, but also to the traditional culture of the Middle East. The teaching was founded on genuine multicultural dialogue, along with academic courses on Judaism and the humanities, and the imparting of professional skills. The study of the Hebrew language, not only as a means of communication but as a vehicle for Israeli culture, played a major role in the curriculum. Buber's instruction on 'The Hebrew Bible in the Shadow of the Holocaust' was a great source of inspiration to the students.

Buber taught that adult education, unlike children's education, is based on full mutuality between equal partners. Adult education is founded on 'real questions', rather than on Socratic challenges or on preparation for examinations. Buber argued that a genuine educator asks questions but rarely offers solutions. Buber believed that adult education should focus on self-learning, and consequently the teacher should provide the student with guidance in educating himself. In the search for the 'truth' the educator contributes his scholastic knowledge, while the students bring to the classroom their collective wisdom gained through life experience. Moreover, adults cannot be altered by manipulation: the duty of education is not to change human beings but to help them to be what they really are, only more perfectly and more faithfully so.

While the major element of adult education is the principle of dialogue, based on 'real questions', the first object of study is the 'clarification of concepts'. It is here that the Socratic system begins to hold sway, aiming as it does to perfect man by perfecting his perception. Buber maintains that the clarification of concepts is of major importance, since: 'Whenever the concepts are incorrect, the words used are not apt; and wherever the words are not apt, actions are not performed'. He points to the lack of clarity in the usage of concepts as the source of empty talk, resulting in confusion and misunderstandings.

Buber teaches that Jewish adult education must be founded on reality, 'our social, cultural and political reality at this historical juncture'. At the same time he states that 'our great national treasure is our prophetic universality', and that 'the kind of nationalism that sets apart, that isolates, is alien to the true essence of Israel'. He says that living Judaism can only be taught in such a manner as to restore trust in the meaning of the world and of life to those who have lost faith. He reminds his pupils that education is predicated on trust: trust in one's fellow human being, who can only be redeemed through meeting a Thou. This trust advocated by Buber – despite Auschwitz and Hiroshima – is a precondition for genuine humanistic education.

Buber's educational message

Buber's educational thought, founded on his philosophy of dialogue, gained him worldwide recognition, especially in the field of humanistic adult education. The Israeli adult education movement was also greatly influenced by his thought. Even today, more than forty years after the founding of the Jerusalem School for Adult Educators, Buber's educational impact is still felt. A number of educational institutions inspired by his teaching are still active in Israel today, among them Ulpan Akiva at Netanya and the Martin Buber Institute for Adult Education at the Hebrew University of Jerusalem, both devoted among other aims to Arab-Jewish rapprochement.

Buber's theory of education is anchored in his anthropological philosophy. Although his pedagogical thought does not offer a systematic model for education, his inclusive message embraces the whole complex of human existence. His teachings on Hasidism serve as a stimulus for moral and religious education; while his Hebrew humanism is a living source for human solidarity and peace education. He saw education as a lifelong process, in which the main task of the teacher is to motivate the students to self-learning and self-perfection. The paramount task Buber sets for the educator is to guide his pupils from the teacher/pupil communion towards the universal communion.

Buber's most original contribution to education is undoubtedly the application of his dialogical principle, especially the element of inclusion, to the pedagogical realm. The same is true of his pragmatic concept of the demarcation line that we are forced to draw frequently between 'heavenly' values and 'earthly' realities, between the categorical imperatives and the definite possibility of fulfilling them in our unredeemed world.

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CAI YUANPEI

(1868–1940)

Zhang Lizhong

Cai Yuanpei, the leading liberal educator of early-twentieth-century China, was best known for being the Republic's first Minister of Education, Chancellor of Beijing University, and the founder and first president of the Academia Sinica, China's highest national research institute. However, Cai was also noted for his pioneering work in reforming the system of traditional education and for his efforts to synthesize Chinese and Western educational ideas. In the midst of today's search for solutions to educational problems, there has been a noticeable renewal of interest in Cai as evidenced by the recent founding of the Institute of Cai Yuanpei Research at Beijing University, which is designed to sponsor and encourage the study of Cai's thought and practice.

Biographical sketch

Cai Yuanpei was born on 11 January 1868 at Shaoxing, Zhejiang Province. As his father was the manager of a local bank, Cai had a comfortable family life. This enabled him to receive a traditional education which concentrated on knowledge of the Chinese classics and the successful completion of the civil-service examinations. After doing so at the age of 22, Cai earned the title of *jinshi* (doctorate) and became a member of the Hanlin Academy, the highest honour accorded to a scholar in feudal China. In 1894 he was promoted to the rank of compiler at the Hanlin Academy.

As the Sino-Japanese War of 1894–95 demonstrated China's weakness in the face of Western science and technology, Cai decided to turn away from compiling the classics and began working on translations of European books in order to understand the reasons behind Western successes. From this period onwards, he spent much time teaching in various government and private schools, trying to disseminate the new ideas from the West. In 1901, educators in Shanghai set up the Chinese Educational Association and elected Cai Yuanpei President.

In 1907, Cai went to Germany and enrolled at Leipzig University where he took courses in philosophy, aesthetics, anthropology and experimental psychology.

During his stay in Germany, he compiled a series of textbooks for middle schools on moral education, wrote *The History of Chinese Ethics*, and translated several German books into Chinese.

On his return to China in 1911 he was appointed Minister of Education by the Republican Government. In protest against Yuan Shikai's autocratic rule, Cai resigned from the post in 1912 and returned to his studies in Germany. In 1913, he moved to France where he studied French and assisted in running the Educational Institute for Chinese Labourers and in organizing the Sino-French Educational Association.

In 1916, Cai was appointed Chancellor of Beijing University and held this position until 1926. During this ten-year period, the leadership of Cai Yuanpei and his devotion to independent thinking, his innovative experimentation and encouragement of young talent helped to develop Beijing University into the major institution of higher education in China.

In 1927, he was named President of the Daxueyuan (University Council), which replaced the former Ministry of Education. Early in 1928, he was instrumental in founding the Academia Sinica, which was designed to advance national research in science and technology. The Academia Sinica, with Cai as its first president, did much to raise the level of scientific research in China, and certain of its institutes gained international recognition.

After retirement from public life, Cai fell ill in 1936 and died on 5 March 1940 in Hong Kong at the age of 72.

Critique of traditional education

Cai's first book specifically on education was *Xuetang Jiaoke Lun* [On the School Curriculum]. Published in 1901, it analyses his most significant early experiences, as well as contemporary thinking. It also forcefully enunciates some of the fundamental educational thoughts which he returned to and pursued in his later writings.

The origin of Cai's educational outlook is the education he received and the intellectual life he experienced within it. At the very beginning of the book, Cai wrote emotionally:

> My childhood was wasted by being entirely committed to becoming a successful candidate in the imperial examinations. My youth was devoted to pedantic learning, a scholasticism confined to explaining the classics and annotating historical works. I began to discover its limitations at the age of 30.[1]

Whereas Cai's indictment was truly based on his own early experiences of examination-based schooling, his first investigation into education was to reason out the limitations of the traditional education then existing in China. Cai summarized his critique of traditional education by using six ideograms: *bi* (vulgar), *luan* (disordered), *fu* (superficial), *xi* (fearful), *zhi* (discouraging) and *qi* (deceptive).[2] The reasons for choosing these characters, as Cai fully explained, can be outlined as follows.

The aim of traditional education was 'vulgar' because it focused mainly on teaching students how to pass the civil service examinations. This forced them to consider the only goal of learning to be the selfish pursuit of personal gain.

The content of traditional education was 'disordered' because there was nothing designed for children's needs in particular and for human development in general. What was taught to students had always been the unchanging classical texts.

Teaching and learning within the prevailing system was also 'superficial' because the dominant method consisted of memorizing and reciting classical texts.

Furthermore, the relationship between teachers and students was 'fearful' because teachers had absolute authority to force students to learn, but the students had no right to question their teachers and no freedom to pursue learning for its own sake.

The common psychological characteristic among students was 'discouragement' because the pressure on them to learn was so strong that they viewed the school as a prison, and longed despairingly for a joyful life.

The outcome of the civil service examinations was thus 'deceptive' because the schooling was obviously ineffective and irrelevant, and the selected bureaucrats formed a privileged caste who took care to shield one another.

Pointing out the above defects, Cai concluded that the existing system of education made no adequate preparation for the Chinese way of life and gave no inspiration to the Chinese mind. Apparently, as he stressed, the roots of its inadequacy were 'its philosophy centred around the examination system' and 'its aim that had no consideration for the human community'.[3] In the early years of reflection on the most urgent problems of education, he advocated that every Chinese educator must be aware of the educational crisis and should have the courage to throw off the yoke of traditional education. Emerging as a leading figure of an educational renaissance in China, Cai claimed:

> We must follow the general rule of freedom of thought and freedom of expression, and not allow any one branch of philosophy or any one tenet of religion to confine our minds, but always aim at a lofty universal point of view which is valid without regard to space or time. For such an education I can think of no other name than education for a worldview.[4]

Furthermore, he was adamant that 'educators can set up a standard based upon the situation of the people and thus we may have education beyond political control'.[5] He sought a new education which, in his view, would be linked organically to society and its culture.

An attempt at synthesis

While his outlook took its origins from his attack on traditional education, Cai did not consider in any way that the new education it was intended to create would have no connection with Chinese traditions.

For Cai, if the new education was to pave its own distinctive pathway to modernism, it was essential to create a new sense of national self-esteem and an open mind to Western advances. He saw that one of the difficulties confronting

Chinese educators was the failure to differentiate between those aspects of China's civilization that were still relevant and those that were not. As he observed:

> Whereas in the past we boasted of our own superiority, now, as a result of repeated defeats and humiliations, we have begun to worship everything foreign and depreciate everything native. We have willingly adopted theories and practices accepted by other nations but refused to experiment for ourselves.[6]

To counter this tendency, he suggested that the road to true reform was in adopting a middle course. This meant that the best in each culture should be selected and synthesized so as to formulate and experiment new theories in the light of China's specific conditions.

That explains why his further investigations focused on one major task: to compare the cultural and educational ideas of China and the West in order that certain syntheses could be made to guide and promote Chinese education. In trying to fulfil such a task, Cai first of all considered a method for the synthesis: 'Regarding the method for establishing this synthesis, it is essential at first to understand the scientific spirit of the West. Then this scientific spirit can be employed to sift China's traditional doctrines, and only by so doing can a new vision be discovered.'[7]

With great enthusiasm, Cai began to look towards the West for guidance in science, the force behind Western progress. His appreciation of Western science was accentuated when he discussed its relation to education. From Western successes, he recognized that the cultivation of science leads to the development of human knowledge and skills in observation and experimentation, and the power of accurate thinking. Science therefore enables the educational effects to be enhanced in both scope and accuracy.

In view of the lack of science in traditional Chinese education, he made a strong case for the theoretical and practical mastery of technical skills through the study of Western sciences. In comparing the educational developments of China and the United Kingdom, he stated:

> We must express a desire that our education should make headway towards a much greater development of scientific education. In England, not only the laboratories in the universities, but also the scientific research societies, are all well equipped. . . . But in China our education for at least 2,000 years has aimed at no higher scientific teaching than to mould the man with a perfect character and give him a literary training.[8]

By virtue of the scientific spirit, he attempted to synthesize stimulating ideas and experiences from China and the West so as to discover some applicable formulae for China's educational reform. These efforts can be better seen through his conception of five types of education.

Five types of education

When Cai became Minister of Education in 1912, he made a cogent proposal on educational policy for the Republic, characterized by the unity of five types of education: military/citizenship, utilitarian, moral, a worldview, and aesthetic education.

For national survival, he recommended military/citizenship education so as to defend China itself, to regain its lost rights and to develop its industrial civilization. On the other hand, he acknowledged that this type of education was derived from the ideology of nationalism, which should eventually give way to an international approach. But to meet the crisis of the time, when foreign aggression and rivalry between military factions were threatening the very existence of the nation, he deemed 'military education for the citizen' both necessary and urgent as a measure of national defence and a balancing force against the different factions.

In connection with the objective of military training, Cai proposed to borrow Western sciences for promoting utilitarian education in China. To clarify the notion of utilitarian education, he noted:

> This theory was created in America but has recently been popular also in European countries. In our country the treasures under the earth have not been developed, the organization of the industrial sector is still in its infancy, the unemployed are numerous, and the nation is extremely poor. Thus utilitarian education is certainly a matter of priority.[9]

In this respect, he was greatly attracted to John Dewey's pragmatic theory with its emphasis on the method of experimental inquiry. He agreed with Dewey that modern education should be designed to bring about the utilitarian aims of fostering human intelligence, democratic mobility and economic growth. It seemed to Cai that the problems of education in China were intertwined with political, economic and social questions. As such, they would not be solved simply by making it possible for more citizens to attend school, or by developing a school system patterned on that of the United States or of other industrialized nations.

Cai was fully aware of, and had often referred to, the tragic abuse of scientific knowledge for the selfish ends of political power and economic profit in the West. He warned that military and utilitarian education unaccompanied by moral training would lead to aggression and arrogance. Moreover, he went so far as to believe that national prosperity unaccompanied by a worldview would create restlessness, discontent and chaos. He therefore suggested that the traditional moral outlook of China should be wedded to the scientific spirit of the West, and the benefit of science and technology should be extended to all the people in the world.

Regarding moral education, Cai valued the national morality as the essence of people's nature and the intrinsic attribute of human life, and he believed that the richly varied ideals of great educators in Chinese history have always been at work in shaping people's lives. From a historical perspective, one crucial problem he raised was how to transfer the traditional values to modern society in accordance with the ideal of new education. He held that obsolete moral precepts, such as loyalty to the Emperor and the worship of Confucius, which violated the spirit of the republican era, should be eliminated from school textbooks. On the other hand, those traditional ideas of morality in line with the republican spirit should be used to serve the needs of modern education.

Thus, Cai advocated that China's new education should preserve the valuable moral principles in the national heritage and draw support from this moral force for building up China's modernization. As he pointed out:

> Moral education is to make people work for mutual protection and mutual preservation, and all this is instrumental in breaking the habit of scheming for one's own interest and in eradicating the sense of difference between self and others. From this, people can progress to the promotion of education in the light of reality.[10]

Cai's attention to the conception of reality was related to his interest in what he called 'an introduction to a worldwide approach'. Here, he employed the Kantian idea of the phenomenal and noumenal worlds. In Cai's view, granting excessive importance to the phenomenal world tended to produce an unhealthy materialism and selfishness. He hoped that the cultivation of a proper worldview would help foster more altruistic and elevated sentiments, thus moving on towards understanding the essential unity of all humankind.

Finally, Cai thought of aesthetic education as an essential part of the new education. He pointed out that little attention in traditional education had been paid to artistic subjects, such as drawing, music and dance. Arguing for the necessity of artistic appreciation for building the life of students in an active and joyful way, he pleaded that artistic subjects must have a prominent position at all levels of the curriculum. A further argument he made was that aesthetic education should be substituted for religious indoctrination. To Cai, it was through aesthetic sensitivity that the innermost desires and feelings of humanity are revealed, whereas the authoritarian nature of religion militates against students' freedom of learning. Therefore, it is necessary to cultivate students through aesthetic education liberated from any kind of religious connotations.

He also considered aesthetic education as a bridge between the phenomenal and the noumenal worlds, because artistic appreciation can help students develop purer emotions and eliminate baser ones such as selfishness, stubbornness and hatred. Thus, he related aesthetic education to worldview education and hoped through these two types of education to extricate the other three types of education (military/citizenship, utilitarian and moral) from political restrictions.

The independence of education

In order to implement the five types of education, Cai thought that the independence of education was a basic and necessary condition. He concluded:

> Education is to help the taught obtain the abilities to develop the intelligence of mind, and perfect personal traits that contribute to the culture of humankind; but education is not to make the taught a special instrument used by others who have some other kind of purpose. On that ground, the enterprise of schooling should be entirely given over to independent educators, uninfluenced by any political party or church.[11]

Since Cai was deeply concerned with the problem of political or religious control in educational affairs, he offered an administrative plan for safeguarding the independence of Chinese education. It advocated the adoption of a university district system in China modelled upon the French education system. He recommended that the Chinese Government establish university districts in various regions of the land, with each district having a university to supervise all levels of district schooling. Control of the university and district educational affairs would rest with an education committee, organized by university professors. The university chancellor would be elected by the committee, and all the district chancellors would form a council of higher education which would discuss matters of mutual concern and decide educational policy. Funds would be collected from local taxes, but a poor district could request aid from the central government upon receiving approval from the Council of Higher Education.

Such a plan, associated with Cai's idea of independent schooling, was desirable but unrealistic. Cai's failure to put his plan into practice is evidence for this point. The plan was proposed in 1922, at a time when China was politically and geographically divided between a host of warlords. Given a situation of incessant warfare and social upheaval, Cai could not hope that the Beijing warlord regime would implement his plan for a nationwide system of university districts. In 1927, when the Kuomintang took over China, Cai eventually persuaded the Nationalist Government to approve his plan to delimit university districts. He was appointed President of the Daxueyuan (University Council), which replaced the Ministry of Education, to direct the administration of university districts. Because the crux of his plan – namely, the shaking off of political control – was in direct conflict with the Nationalist aim to unite China under its centralized political power, Cai's University Council was destined to be short-lived. In fact, it survived for less than a year. Facing the harsh reality, Cai might perhaps have felt that the impact of party politics upon education in the country was too enormous to withstand.

Although Cai was frustrated in his attempt to realize his plan to establish a university district system, he never tired of insisting upon and disseminating his idea of independent schooling. Based upon this key idea, he made efforts to develop his thinking on such relevant issues as democratic administration and academic freedom.

Consistent with his idea of making schooling independent of politics and religion, Cai advocated creating democratic conditions for educational administration. He pointed out that there are two essential elements in democratic administration: one is 'to seek and accept suggestions made by the masses'; and the other 'to encourage reforms where needed'.[12] As an administrator and educator, Cai was always in favour of sharing responsibility, and he stressed the importance of running the education system by those directly concerned with, or experienced in, education.

When Cai became Chancellor of Beijing University, he did his utmost to put into effect the principle of democracy, and successfully initiated a number of reforms in university administration. First, the Pingyihui (Executive Committee) was organized among the faculty deans, as a legislative body to help direct the institution, thus permitting greater participation in university decisions by the faculty. Secondly, the Jiaoshouhui (Professors' Committee) was set up as an academic body to take responsibility for the curriculum. Thirdly, several student organizations were formed by the students themselves, to promote students' self-regulation as well as to serve their campus activities.

Another important aspect of Cai's belief in democracy was his adherence to the principle of academic freedom. For Cai, schooling was essentially responsible for developing the widest diversity of commitments and attitudes in support of intellectual progress. As he remarked in a letter about the policy of Beijing University on academic freedom:

> 1. With respect to intellectual theories, the example of universities all over the world will be followed, that is, all ideas and opinions will be tolerated and accommodated in accordance with the principle of 'freedom of thought'. . . . Inasmuch as different schools of thought can uphold their views and have not fallen by the way in the process of natural selection, they will be allowed to develop freely in spite of their conflicting natures.
> 2. With respect to the teaching staff, scholarship will be the main criterion for their appointment. Their work of teaching will also be guided by the principle of freedom of thought.[13]

Consequently, this open policy enabled Beijing University to attract and recruit many renowned scholars who represented various schools of thought, such as: Chen Duxiu, editor of the radical journal *Xin Qingnian* [New Youth] and, in later years, a founder of the Communist Party; Hu Shi, a leader of the literary revolution and a key figure in introducing Dewey's ideas to China; Liu Shipei and Huang Jigang, defenders of the traditional literary style; and Gu Hongming, a supporter of the autocratic monarchy. It was the creation of a highly competent and committed faculty that helped Beijing University become a central forum of cultural and intellectual interchange and gain a high reputation for its advanced scholarship. Based on his experience at Beijing University, Cai concluded that it was particularly significant to raise awareness of the issue of academic freedom among Chinese educators since this principle could be used to break down the authoritarianism of the Confucian tradition which had dominated national education for 2,000 years.

Influence on Chinese education

Cai was first and foremost an enlightened educator who grappled with new ideas and searched for positive answers to China's many problems in the course of educational modernization. His great influence on Chinese education can be epitomized in the following four aspects.

First, in the history of China's educational reform, Cai's critique of traditional education was remarkable since it helped to create a consciousness of the limitations of the Confucian framework and consequently initiated the construction process of modern Chinese education. Even more remarkable was his effort at synthesis which has been regarded as one of the most significant attempts to fuse China's cultural and educational heritage with the dynamics of modern Western thought.

Second, Cai's conceptualization of five types of education represented a new theoretical orientation, characterized by its critical attitude towards the Confucian tradition and its objective to be congenial with the spirit of China's republican era. His emphasis upon the importance of scientific knowledge and social action was particularly influential in exchanging a classical curriculum for a scientific one. Moreover, his sustained promotion of aesthetic education made schools give an important place to teaching artistic subjects, which were despised in traditional education.

Third, through his leadership as Chancellor of Beijing University, Cai carried out many practical reforms which had a profound impact on the development of higher education in China. He is well remembered for his accomplishments in the stimulation of creative scholarship and pure research, and in the reorganization of university administration based on the principle of democracy. Also, the pre-eminence of Beijing University is directly attributable to Cai's encouragement of academic freedom, which led to the creation of a varied intellectual community and activated a wide range of learning interests among the students.

Fourth, his claim for the independence of education has been an inspiration for realizing democratic education in China. In this respect, Cai's relevance lies precisely in his treatment, within the context of his liberal educational theory, of exactly those problems which are still perplexing Chinese educators today: the role of the government in the provision of education; the function of political ideology in schooling; and the continuity and stability of educational policies. However, the relevance of his claim lies not merely in its substantive contribution towards pinpointing these problems but, equally, in its illustration of some possibilities for addressing their apparent intractability.

Because of his influence, it is not hard to see why scholars have paid so much attention to Cai. As a result, a considerable literature has been devoted to his life and work. Most recently, in order to commemorate the 120th anniversary of his birth, a conference on Cai Yuanpei was held at Beijing University in May 1988, and attended by scholars from both China and other countries. It demonstrated that it is well worth while to renew investigations of Cai's pursuits and ideas, especially with reference to education in China today.

Notes

1. Gao Pingshu (ed.), *Cai Yuanpei Quanji* [The Complete Works of Cai Yuanpei], Vol. 1, p. 139, Beijing, Zhonghua Press, 1984.
2. Ibid., Vol. 1, p. 140.
3. Ibid., Vol. 1, p. 139.
4. Ibid., Vol. 2, p. 134.
5. Ibid., Vol. 2, p. 130.
6. Ibid., Vol. 2, p. 264.
7. Ibid., Vol. 3, p. 350.
8. Ibid., Vol. 4, p. 473.
9. Ibid., Vol. 2, p. 131.
10. Ibid., Vol. 2, p. 134.
11. Ibid., Vol. 4, p. 177.
12. Ibid., Vol. 3, p. 332.
13. Ibid., Vol. 3, p. 271.

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ÉDOUARD CLAPARÈDE

(1873–1940)

Daniel Hameline

According to the brief entry on Genevan psychologist and educational theorist Édouard Claparède in the Thesaurus of the *Encyclopaedia Universalis* (1985 edition), his work has been 'somewhat forgotten', even if in his own day he did have 'quite considerable' personal influence. A courteous tribute, but hardly an enthusiastic one. And yet between 1981 and 1984, Carlo Trombetta and Sante Bucci published seven volumes of Claparède's previously unpublished works, with annotations and commentaries; a thesis on his work was written in France (Lyon, 1982); and two symposia were held on the relevance of his work for today (Rome, 1983, and Geneva, 1984). So there is perhaps some room for readjustment of this assessment.[1]

One might be tempted to say that the very fact of having been forgotten is, paradoxically, a sign of Claparède's achievement, the positions he fought for having become so widely accepted in educational theory that there is no longer any need to link them to a specific author. But this anonymity is perhaps also due to the fact that Claparède's educational ideas, rather than constituting an original body of thought, were the reflection of an era whose uncertainties have continued into our own. We shall therefore try to define the part Claparède played and the special contribution he made to the movement now generally known by the eminently vague expression of 'the New Education'.

An eclectic controversial movement

It was from this apparent Babel of educational theory that the voices of the Genevan intellectuals, and of Édouard Claparède in particular, first emerged. Claparède made his very striking first contribution to the movement with the publication in 1905 of *Psychologie de l'enfant et pédagogie expérimentale*. Through a series of new editions, this little book gradually became an impressive treatise. But the tone of its author's work was established right from the very first edition: critical and active opposition to accepted educational practice, and a call for recourse to science and scientific objectivity as a basis for a new approach.

But the opposition were also very vocal from the outset. They, too, were a mixed bunch, which faithfully dogged the steps of the successive generations of enthusiasts. There were also many adherents of the movement – which at the celebrated Calais Conference of 1921 became an International League – who gave vent to criticism and expressed reservations. Claparède himself was not backward in this respect. A considerable part of his authority within the movement was due to his polemical aggressiveness towards the 'traditional' school and to his exceptional ability to cut through the ideological undergrowth surrounding the concepts being considered and render those concepts 'instrumental'. His famous 1923 clarification of the concept of 'the active child', which appears in his *Education fonctionnelle* of 1931, is perhaps the most remarkable example of this.

One might have thought at the time of the great leap forward in school education after the Second World War, and particularly during the major campaigns led by UNESCO during the 1950s and 1960s, that the educational tenets dear to Claparède had become irrevocably part of modern school education. But it is interesting to note that today concepts of which Claparède was one of the main advocates are being called into question once more, in a vigorous, self-assured way and in a number of different quarters. Those concepts are being analysed, not so much as the result of a rational, reasonable approach to the phenomenon of education, but rather as the continuation of a mystificatory ideology which can be relied on, above all, to lead education policies into blind alleys.

This radical challenge is expressed, albeit in very different ways, by such writers as Neil Postman in the United States[2] and Jean-Claude Milner in France;[3] Carlos Lerena[4] adopts the tone of a pamphleteer as he tries to identify the 'convergences' that are reflected in the discourse and work of the major international organizations:

> Contemporary mankind was produced in a positivist, totalitarian temple in whose pulpit the most effective preachers were the 'soft' followers of Rousseau, not the tough Comtians. Or, to be more precise, the most successful sermon was that of the 'childish childhood' theorists, the gospel that of psychologism and the cult one of interpersonal relationships. . . . It was a sermon of Socratism and self-education . . . leading to a counter-sermon from the evangelists of that de-activated bomb which is deschooling, and so on, until we come to UNESCO's technical discourse on lifelong education. All this leads us to see Rousseau's hand in the building of this positivist, Comtian temple – Rousseau to whom the line always goes back, as to Kant.

That diatribe certainly gives food for thought, though its virulence detracts from its credibility before one even starts to examine it. And it makes today's renewed interest in Claparède singularly relevant. For in a sense his principle of a 'scientific' understanding of human affairs was indeed a continuation of the positivist approach. Yet it was Rousseau's patronage he chose for the founding of the Institute of Educational Sciences that was to give Geneva its worldwide reputation, and Rousseau whom he named as the precursor of his own functionalist conception of childhood.[5] An effective childhood theorist, was Claparède one of the high priests of a pedagogy of childishness? Upholding the primacy of psychology, was this herald of the 'Copernican revolution' that makes the active child the centre around which the teaching-learning process revolves a zealot preacher of the 'psychologist' gospel?[6]

A citizen of Geneva

Edouard Claparède came from a line of Protestant pastors from the Languedoc, who settled in Geneva after the revocation of the Edict of Nantes in 1685. In a word, he was heir to the scholarly Geneva more than to the religious Geneva. A Calvinist by tradition, his Protestantism was closer to liberal thinking than to the ecclesiastical orthodoxy of mystical revivalism. It was, above all, a spirit of initiative and independence reflected in an adventurous individualism and strengthened by a multitude of consciously chosen and cultivated bonds of solidarity.

Because of his great admiration for another Edouard Claparède, his uncle, a zoologist of great renown and a convinced Darwinian, it was in the learned circles of Geneva that Claparède moved. Men like Charles Bonnet, the de Candolle brothers, Carl Vogt and Claparède's uncle had built up in the city a strong tradition of experimental research, intellectual rigour, plain speaking and free commitment, as well as faith in the natural sciences and in nature itself above all. These men of learning were also important men in Genevan society. But their status as men of science enabled them to escape the worldly constraints of a city which, whatever its international vocation and cosmopolitan connections, was in many ways, behind its decorous façade, a narrow, cramping provincial town.

Claparède had scant respect for this side of Geneva. His first writings, in 1892, were already a critique – albeit a moderate one – of the education he had received at the Collège de Genève. But these youthful reflections on education, while they herald the educationist of later years, are as much the reflections of a 'citizen'. That is what distinguishes Claparède's voice among the chorus of voices in the newly emerging human sciences. And it is the citizen one finds again in 1898, drafting an essay on 'Public Opinion in its Relations with Reason and Morality', intended as a 'work of psychology and moral politics'. Sante Bucci[7] has commented at length on this unpublished work.

Psychologist or moralist?

But, as the 1898 essay shows, it is on psychology that Claparède pins his hopes for a reform of public opinion. Deploring the startling contradictions of collective movements, he refers, *inter alia*, to Gustave le Bon and his famous *Psychology of Crowds*. But he applies the same strictures to the privileged classes, who ought, in his view, given their level of culture, to be capable of overcoming the inhibitions and insidious social pressures, the what-will-people-say mentality and the hypocrisy that are typical of them and deepen their social responsibility.

Science is neutral, Claparède the psychologist insisted. But, along with many a contemporary adept of 'scientism', he remained convinced that, when all is said and done, the application of science to human affairs represents progress. And in his view the improvement is not merely an improved knowledge of humankind. One may say, as Carlo Trombetta does,[8] that in the last analysis Claparède gives precedence to an ethics of social conduct, that is, of the conduct of man in society. And, along with all who have commented on Claparède's work, we may note how eloquently his spiritual testament *Morale et politique* (1940) completes the circle, expressing the same concern fifty years on, that is, that psychology can and must help us to invent a society in which integrity is not pushed to one side.

Life and works

Claparède, militant and man of science, has left us an abundance of writings, a body of work which had a greater influence on his era than the encyclopedia entry quoted at the beginning of this essay would suggest. There are over 600 works published between 1892 and 1940, striking in the breadth of their intellectual preoccupations and the combativeness with which these are asserted, their uncompromising moral vision and the wide range of social interests to which they confidently appeal.

Claparède contributed a generous scientific flow to the specialist journals of the day, writing on the most varied of topics, so much so that one may find him somewhat impulsive. But he always combined a lively curiosity with a methodical approach. He was thus able, for example, to touch on all aspects of psychology: he had the gift of asking the right questions, an entirely Socratic gift, and one that reveals the educationist described for us by his students at the Institut Rousseau. But he did just as much, expending a great deal of effort and time, to popularize educational ideas and bring them to the attention of the general public in a multitude of articles published in weekly magazines and daily newspapers.[9] And, lastly, there are the hitherto unpublished lectures for which Carlo Trombetta has now brought us the preparatory notes, which display a powerful erudition and an eminently educative ability both to clarify a complex question and to bring out the problems in a seemingly simple one.

But the scientist was also an entrepreneur. Like the American John Dewey, whom he admired,[10] Claparède could not conceive of teaching educational psychology without establishing the minimum institutional infrastructure needed to apply it. The idea for the Institute of Educational Sciences he set up in 1912 was certainly not his alone, nor was he even the first to whom it occurred.[11] But it was his constant concern that the teaching methods used in the institute should comply with the ideals it propagated, and that it should be a real workshop where the difficult job of aligning theory and practice might be worked through. Pierre Bovet, whom Claparède called in to direct the institute, has recounted the first twenty eventful years of this college of education that set out to be 'different'.[12] Seen through the rose-coloured spectacles of nostalgia, the enterprise was an exciting one, an Iliad or Odyssey of the new teaching methods. Much remains to be written, but one thing is certain: it was Claparède's tenacity in the face of many constraints and vigorous opposition that enabled the great venture to get off the ground and to keep going.

We see the same tenacity in Claparède as the linchpin of the Psychological Internationale, until his death assiduously keeping the minutes of its congresses, and founding and managing the famous *Archives de psychologie*. This was how he tried to bring together that mixed bag of European researchers, cosmopolitan individualists and touchy nationalists alike, into an international learned society where rivalry would become emulation, personal conflict a confrontation of ideas, and an over-sensitive holding back of information, open co-operative exchange.

As a consistent exponent of scientism, Claparède argued for the autonomy and moral neutrality of the experimental psychology he helped to found, and as we have already seen, he regarded it as a lifelong duty to draw the attention of researchers to the fundamentally ethical nature of their task as men of science. He spelled out three requirements: (a) intellectual integrity in research work; (b) the responsibility of the scientist in civic affairs; and (c) the collective commitment of men of science to counter the threat – and the tragically proven reality – of a return to barbarism. Here he considered it impossible to remain neutral. And it is fair to say, without seeking to dramatize the story for literary effect, that Claparède died on seeing the final collapse of his ideals in 1940.

An obsession with the 'functional'

Perhaps we are now in a position to spell out the contradiction Claparède had to confront when he sought to found a positive, autonomous science and at the same time use it as a basis for action in areas where his most deeply held convictions were at stake. When he faces this contradiction, Claparède's thought on education reflects the solidity and, at the same time, the fragility of its foundations.

As early as 1911 Claparède had laid the foundations for a body of thought on education which, right to the end, was put forward as the application of a 'functionalist, biologist anthropology': the human being was, for Claparède, above all something that 'functions'. And the only way education could operate was by coinciding with this way of functioning, becoming one with it; instead of what was for many thousands of children the heavy, ineffective baggage, artificially added on, it should become the natural expression of their activity and development.

This functionalism is the central thread of Claparède's thought on education, the key to his anthropology. In his *Autobiography*, published by Pierre Bovet along with the 1946 posthumous edition of *Développement mental*, Claparède points this out himself. To adopt a functionalist approach to psychological phenomena is, as Claparède says, to see them above all 'from the point of view of their role in life, their place within the overall behaviour pattern at a given moment. It amounts to asking what use they are.' And he continues: 'After wondering what sleep is for, I tried to see what childhood was for, what intelligence was for, what the will was for.'

'What is it for?' The question seems a trivial one. But we should note first of all that it ties in with the necessarily utilitarian approach of decision-makers after 1880, when they began to invest larger and larger sums in education budgets and had to ask themselves how profitable that investment would be. 'Profitability' is not a term Claparède was afraid of. We are a long way, here, from 'childishness' and a 'soft' idealization of childhood. Efficiency (*rendement*) is not, for him, a negative notion in education. At the level of the study of 'individuals', he sees it as an essential component of any aptitude. For an aptitude only becomes manifest when required by an external situation imposing certain constraints on the subject.[13] At the level of 'social criticism', Claparède reproaches the school system precisely for failing to get the most efficient output from the intelligences it handles, and for frittering away a nation's intellectual capital. He illustrates this by pointing to the gap between educational attainment and measured intelligence: the most outstanding intelligences stagnate in school, as education is geared too much to the mass of average pupils. Claparède never conceals his 'élitism', just as he always rejoices when less gifted pupils are brought up to standard.[14]

But this indictment of a wasteful education is a direct result of his 'conception of this life of the spirit'. And on this point, Claparède's two great metaphors are highly instructive. Robert Dottrens, who was the first primary-school teacher to receive his diploma from the Institut Rousseau and later became joint director with Piaget, sees in Claparède's opening statement in the first edition of *Psychologie de l'enfant et pédagogie expérimentale* a theme on which 'all subsequent works were to be in a way successive variations': 'That teaching must be founded on a knowledge of the child just as horticulture is founded on a knowledge of plants would seem to be an elementary truth. Yet it is not recognized by most educators, or by almost any school authority.'[15] Carlo Trombetta found in the margin of a lecture on *The Psychology of Interest*, dated 1904, a series of clock-making metaphors which he compares to a passage in *L'association des idées* (1903):

> Consider a chronometer and take it apart: you will find cogwheels everywhere. Break one tooth: your chronometer will no longer work; it will no longer be of any use or value. Does it follow that it is the cogwheel that makes the machine work? Not at all; it is actually driven only by the tension of the spring. The cogwheel plays a *mechanical* role; the spring plays the *driving* role, the *vital* role, as one might say if one put oneself in the position of the chronometer itself.[16]

So we find the spring ranked with the plant and allotted a 'vital' role, though of course metaphorically, if one puts oneself 'in the position of the chronometer itself'. If we transpose this to the subject of education, we find the 'Copernican revolution' called for in the famous text of 1919:

> Childhood has a biological role to play. . . . One must therefore study the natural manifestations of the child and make educational activity fit in with them. Methods and curricula gravitating around the child, and not the child turning as best it can around a programme decreed without reference to him; that is the Copernican revolution psychology urges on the educator.[17]

Two metaphors and a reversal have thus brought Claparède to the heart of the theoretical contradiction he has to tackle. On the one hand, his use of the horticultural metaphor is an invocation of 'nature' and its functioning – a functioning of a 'vital' nature, concerned with the essence of life. But what is 'life'? A scientific study of the phenomena of the living must not fall into the trap of 'vitalism', which is a purely verbal response, merely evoking the mystery of a hidden property, an unobservable principle. Vitalism cannot give a satisfactory answer to the only question Claparède considers of interest to the educator, the psychological question: 'Why does it work that way?'

This sends Claparède back to 'mechanicism' and the description of structures: 'How does it work?' But does such a description allow one to take functions into account? No, says Claparède, stubbornly continuing to ask 'What is it for?' and refusing to see that this persistent question opens the way to metaphysics.

Neither mechanicism (since that is to refuse to wonder about such phenomena as the length of childhood, or interpret its utility) nor vitalism (which is to build fantasies around that interpretation); 'Life is a succession of co-ordinated actions whose function is to adapt the organism to its environment': the formula comes from Herbert Spencer and is quoted by Bovet with reference to William James.[18]

But as Piaget, with his usual sagacity, has shown, the commonplaces on which Claparède's functional education and psychology are grounded are those of his time. Spencer's evolutionist anthropology supplies the central notion of 'adaptive utility'. The pragmatism of James and Dewey shows him the origin of consciousness as a history of successive readjustments of 'action' to the requirements of the environment. And, lastly, Claparède shares with Bergson, for example, an approach one might call 'dynamogenism': every living thing, and the child in a specific way, has its own peculiar 'driving capacity'. 'The psychology of the twentieth century', comments Piaget, 'has been from the outset, and in all respects, an affirmation and an analysis of activity. . . . Everywhere [there is] the idea that mental life is a dynamic reality, intelligence a real and constructive activity, will and personality continuous and irreducible creations.'[19]

Interest, a central concept in education

It is relatively easy now to understand why the notion of interest, reworked in the context of this functionalist anthropology, occupies a central place in Claparède's psycho-pedagogical thought. He was not naïve: he very quickly realized the mistake he had made in the very early editions of *Psychologie de l'enfant et pédagogie expérimentale* (1905) in calling for an 'attractive' education. By 1911, he had readjusted his sights: from then on he preferred the term 'functional' education.[20] Of course, his indignation at the plight of 'bored' and 'disconsolate' pupils in a 'life-crushing system that runs counter to nature' had in no way diminished. But interest cannot be reduced to a question of what is 'interesting'. Claparède saw it more through the popular expression *'tu as intérêt, sinon . . .'* (you'd better, or else . . .), where there is perhaps a threatening, or at least a 'warning' note; it would be against the interest of the organism to fail to react in a certain way.

This is the well-trodden ground Claparède shares with Jean-Jacques Rousseau. Nature knows how to serve its own interest: 'what it does, it does well, and it is a better biologist than all the pedagogues in the world put together'.[21] Nature, and therefore the child in the natural state, knows its own needs, which are first and foremost to develop through action and growing. The child's interest thus lies primarily in 'play'. Claparède was to be the first to give full scope to Karl Groos's famous theory on children's play. 'What is play for?' asks Claparède the scientist, prosaically. The child plays because it is in the child's interest to play, and because the child is therefore interested in playing.

In short, Claparède's functionalism as applied to education is a kind of 'economics' in which one can see, as it were, the foreshadowing of the modern systemic approach. Individuals in the ecosystem of their environment, driven by the dynamic of their own growth, feel 'needs' which make them turn towards their environment and are transformed into 'interest' which in turn becomes a range of changing 'interests', which become more and more complex as individuals interact with their surroundings.

The consequences of this 'economics' as far as educational practice is concerned are, theoretically at least, easy to identify. Education is gradual adaptation, with the child's growth as the driving force. Childhood is useful per se. It is therefore crucially important not to rush the child through it. If interest is the mainspring of education, education is not primarily a question of punishment or even of reward, but of matching what is to be done with the subject that is to do it: discipline comes from within. A school must be active: a laboratory, not an auditorium. It must not make the child hate work. It is already a social environment, valid in itself and also constituting a preparation for adult life. The teacher is there, above all, to stimulate interest.[22]

We have no trouble recognizing in this list the principles of the 'active schools' as formulated by Adolphe Ferrière or Pierre Bovet at the same time as Claparède, and as we find them later in Piaget. But the particular characteristic of Claparède's contribution is the rigour – one might almost say rigidity – of the 'deductive' reasoning which leads him to them. What we find in Claparède is indeed the theoretical construction of a biological anthropology applied to education, while at the same time we can identify most of the slogans to be found in the 'era' of New Education in the practical recommendations he draws from it.

Tough or soft?

The logic of Claparède's contribution to the science of education is seductive. But is it not simply a scientistic dressing-up of an ideology that dominated his era and has survived into ours? Alberto Munari[23] has argued that the conception of science that gave Claparède the paradigms for his work is more a continuation of approaches worked out in the eighteenth century than a precursor of those now emerging at the end of the twentieth.

Certainly, if we return to the impertinent questions inspired by Carlos Lerena's pamphlet, it seems clear that, even where he reflects the modernistic psycho-pedagogic tendencies in fashion among the Western middle classes in the first half of the twentieth century, Claparède has to be classified as 'tough' rather than 'soft', to return to our previous metaphorical categorization. Claparède is anything but a spineless educator rhapsodizing over the 'child-king'. It is his anthropology that leads him to recognize childhood as a period in which foundations are laid, and to say that its level of efficiency is not very high. He does not confuse interest with pandering to whims. And for him psychology does not mean being a benevolent and sentimental listener, but a scientific undertaking that disrupts habits and inclinations.

Three main questions

For my own part there are three major questions on which I would distance myself from Claparède's psycho-pedagogy, although they do not prevent me from admiring the example of the man and his work.

In the first place Claparède's 'venture' is far from having borne all the fruit he hoped for. In particular, he did not succeed in bringing educational theory and practice closer together. In 1905 he was already levelling the most damning accusations at educational practitioners. In the purest spirit of Taylorism, he helped to strengthen the position of the experts, denigrating work in the field in favour of the laboratory where only the psychologists, raised to the level of experts, are credited with a correct appreciation of what is happening in educational institutions.

The error was at the very least a 'strategic' one. It alienated him permanently from the great mass of schoolteachers and, above all, aroused the animosity of those in charge of teacher training, though a broad measure of support for the 'active school' had emerged during the 1920s. This ephemeral alliance was split by petty quarrelling in which Claparède did not always play the most attractive role.[24]

But his mistake was just as much a question of 'theory'. On the one hand, the subsequent development of educational research has shown that the idea that light could be thrown on educational practice through a purely psychological approach was to some extent an illusion. If all the 'variables' that make a situation an educational one are to be taken into account, the interdisciplinary resources of sociology, group psychology, ethno-methodology, etc., must be brought to bear; on the other hand, the Taylorist model in which the outside expert is pre-eminent has been demolished as far as the rational organization of labour is concerned by movements of the 'quality circle' type, whose paradigm is precisely the reverse of Taylor's: if they are given some encouragement and are recognized as researchers, it is the practitioners themselves who are best placed to improve efficiency. Paradoxically, this is a restatement, at the level of human productivity, of the active school's principles. Too convinced of the expert's superiority, Claparède could not see the contradiction.

In the second place, it has to be recognized that Claparède's psycho-pedagogy stopped halfway. Claparède's contemporaries did not hesitate to draw attention to the very general, theoretical, abstract nature of the educational recommendations that arose from his functionalist anthropology. On the one hand, there has always been a misinterpretation which equates interest, as defined by Claparède, a biological driving force, with the facile, manipulative demagoguery of learning through entertainment. And it is not easy to identify those responsible for this persistent misinterpretation: the misconception is shared by the sharply critical and those full of unwelcome praise alike. Integrity, by which the honest Claparède set so much store, has here given way to misunderstanding. Why should that surprise us? 'Permissiveness' as a cultural deviation in Western educational relationships has carried far more weight in the development of ways of doing, thinking and speaking than did functionalism, an attempt at scientific interpretation so pathetically restricted to the groves of Academe.

Thirdly, Claparède's concrete proposals for improving day-to-day classroom teaching are quite incommensurate with the vehemence of his denunciations. In fact he was innocent of any teaching experience under normal, humdrum, work-a-day classroom conditions. His adversaries lost no chance of reminding him of this, even when their criticisms were made in good faith; one example is Gabriel Compayré, a pillar of state education in France, who supported Claparède when he founded the Institut Rousseau, but wrote:

> What bothers us are the difficulties of application. When Monsieur Claparède comes to the question of how one might make certain difficult subjects interesting, he evades the question, he refrains from answering, he declares that this is a matter of the educator's art; whereas it would be most useful to be told how one might put some interest into studies that hold none in themselves.[25]

It is significant that among the texts now published for the first time by Carlo Trombetta is the plan of a work entitled *Éducation et intérêt*, dated 1915, in which the aim is explicitly to respond to Compayré's challenge. But the only chapter that was written was a vigorous analysis of the 'disgust' and, more precisely, the psychological nausea induced by school curricula. The following chapters, which were to have shown some examples where disgust had been replaced by interest, were never written. Could they ever have been if it is true, as Michel Soëtard writes with such perspicacity,[26] that the message of a man like Pestalozzi is ultimately that 'the very meaning of education and its application in teaching is based on the need to maintain a permanent link, *but a link across a yawning gulf*, between theory and practice'?

My last remark will deal with the co-existence of the psychologist and the moralist in Claparède's work and life. This has given us what one might call a 'psycho-ethics'. In applying biological functionalism to child psychology, Claparède broadened the base on which his educational approach was founded. For this psychology, in one sense, is no longer psychology. But if it has expanded, it has turned into a 'naturalistic anthropology'. Its key concept is that of 'adaptation' which, it has to be remembered, is 'theoretically infallible' – since nature cannot make mistakes about its own interests – but is also 'in fact' in a state of 'chronic failure', since civilization, and the school in particular, has treacherously compromised it.

Claparède, ardent in his condemnations of the moral climate of society, lacked a real theory of civilization. Watching, grief-stricken, the rise of totalitarianism and the return to violence, he lacked a theory of barbarism, that 'essential barbarism' of which Pestalozzi was already defining the 'function' within society: 'The barbarism in which men live is nothing other than a consequence of nature's aspiration to culture.'[27]

Calling on Rousseau only to construct a psychological theory, Claparède launches his attempt at reforming human relations in the name of a good and reasonable nature. It does not occur to him that the human being might be defined in terms of artifice and 'original' denaturing. We may compare him for a moment to his contemporary, Freud, as does Mireille Cifali.[28] Claparède actually proposed that what Freud called the 'libido' could be equated with 'interest'. Freud did not accept the proposition. And rightly so, for he could not subscribe to Claparedian economics, obsessed as he was by the notion of artifice as the key factor in the process of human civilization and an overriding assumption of death and violence, with no place for the restoration of a 'good' nature, functioning harmoniously and evolving by itself. Claparède's 'need', a full life in search of a functional addition to life, could not be confused with Freud's 'desire', a hollow life on parole from death. Can an anthropological theory be anything but romance and drama? We may not share Freud's convictions and we may find the last word on the relationship between civilization and violence elsewhere. But Freud did nevertheless take the only interpretive path that can give expression to life – the path that includes life in death.

Claparède, trapped in the closed circle of an over-simplified self-adapting system, could not offer education a valid theory of the will. Samuel Roller, one of his most fervent disciples, has admirably demonstrated the limitations of Claparède's contribution on this essential educational point. Will is beyond the reach of the functional. The moment the will comes into its own, writes Roller,[29] can only be a 'heroic moment'. The 'joy' that stems from it cannot be reduced to the satisfaction that regulates a need. Joy, that face-to-face with death, is joy. No more and no less.

Notes

1. Carlo Trombetta (ed.), *Édouard Claparède, Inediti psicologici*, Rome, Bulzoni, 1981, 1982, 6 vols.; Sante Bucci (ed.), *Édouard Claparède, Inediti pedagogici*, Perugia, Università degli Studi, 1984; Serge Rogowski, 'La fonction de l'éducation dans la pensée d'Édouard Claparède', Lyon, University of Lyon II, 1982 (Doctoral thesis); Proceedings of the Rome (1983) and Geneva (1984) symposia, special issue of *Studi di psicologia dell'educazione*, No. 3, 1984. Three less recent publications may also be noted: Alfred Berchtold (ed.) , *Centenaire de la naissance d'Édouard Claparède*, Geneva, Faculté de Psychologie et les Sciences de l'Éducation (FPSE), 1973; 'Trois pionniers de l'Éducation nouvelle: É. Claparède, H. Wallon, H. Bouchet', *Le Binet Simon – Bulletin de la Société Alfred Binet et Théodore Simon* (Lyon), 1973, No. 73, pp. 242–304 (special issue); *Édouard Claparède*, OMEP national day, Paris, 1976, proceedings published by the Comité Français pour l'Éducation Pré-scolaire, Paris, 1976.
2. Neil Postman, *Teaching as a Conserving Activity*, New York, Delacorte Press, 1979.
3. Jean-Claude Milner, *De l'école*, Paris, Editions du Seuil, 1983.
4. Quoted by Antonio Novoa, 'La professionalisation des enseignants au Portugal', Geneva, 1986 (Doctoral thesis).
5. Cf. Édouard Claparède, *L'Éducation fonctionnelle*, pp. 97–136, Neuchâtel/Paris, Delachaux & Niestlé, 1931.
6. Georges Snyders has been reviewing trends stemming from the New Education from a Marxist standpoint for over twenty years: Georges Snyders, *Pédagogie progressiste*,

Paris, Presses Universitaires de France, 1971, and *Où vont les pédagogies non-directives?*, Paris, Presses Universitaires de France, 1973.

7. Bucci, op. cit., pp. 5–15. Some penetrating views of Édouard Claparède and his times had already been developed by Berchtold, op. cit., pp. 78–96.
8. Trombetta, op. cit., Vol. 1, p. 45.
9. These articles have been published together in the three editions of *Causeries psychologiques*, Geneva, Naville, 1933, 1935, 1937.
10. In 1913 Claparède wrote a long preface to a translation of several articles by John Dewey published under the title *L'école et l'enfant*, 7th ed., Neuchâtel/Paris, Delachaux & Niestlé, 1967.
11. In 1911, Maurice Millioud had put forward to the Lausanne Faculty of Letters a project which was to inspire the work of the Genevan intellectuals.
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JAN AMOS COMENIUS*

(1592–1670)

Jean Piaget

Nothing is easier, or more dangerous, than to treat an author of 300 years ago as modern and claim to find in him the origins of contemporary or recent trends of thought. A typical example of the difficulties this kind of interpretation meets with is the controversy about the significance of Francis Bacon's work (and the example is of particular interest here, since Bacon, as we know, was one of Comenius' sources of inspiration and was frequently quoted by him). Some authorities hold Bacon to be one of the precursors of modern experimental science; others find in his empiricism the whole residue of pre-scientific ways of thinking and emphasize how, as a theorist, he missed contact with the real science of his time, that of Galileo. Comenius could likewise be represented either as a precursor of evolutionary theory, genetic psychology, teaching methods based on child psychology, functional education and international education; or as a metaphysician who had no idea of the requirements of experimental psychological or even educational research, and who substituted the discussion of ideas for the analysis of facts. Yet all these extreme judgements would be incorrect.

The real problem is to find in Comenius' writings – our knowledge of which has been so much enriched by the discoveries of the group now working at the Comenius Institute in Prague – not what is comparable with modern trends, to the neglect of the rest, but what makes the vital unity of the thinking of the great Czech specialist in theory and practice; and to compare this with what we know and want today. Either Comenius can have no immediate interest for us at the present time or his interest for us depends on that central core of thought which is to be found in any system and which it should be possible to express in the form of a few simple ideas. In the first part of this introduction, we shall therefore try to discover the dominant ideas in Comenius' thinking; then, in the two succeeding parts, we shall seek to bring out the aspects of the great educationist's work which are still important for us, in the light of these central ideas restated in terms accessible to us.

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* There was already a voluminous literature on Comenius, in many different languages, even before the celebration in 1992 of the quatercentenary of his birth. In 1992 innumerable meetings, seminars, tributes and publications were devoted worldwide to this celebrated pioneer. For the purposes of this essay, it seemed appropriate to go back to the study written about him in 1957 by Jean Piaget, the then Director of the International Bureau of Education. This unjustly forgotten study, entitled 'The Significance of John Amos Comenius at the Present Time', appeared as the Introduction to a volume of 'Selections' published by UNESCO in that year (and out of print ever since), marking the three-hundredth anniversary of the publication of *Opera didactica omnia* (1657–1957).

We have taken advantage of the opportunity to add a chronology of Comenius' life and work prepared by Giuliana Limiti of the University of Rome and previously published in *Prospects* (Volume 13, No. 1 (45), 1983, pp. 138–43), as well as a select reading list on Comenius chosen by Marcelle Denis of the University of Dijon.

A profile on Jean Piaget himself, written by Alberto Munari of the University of Geneva, will appear in this series.

I

When we go through the mass of Comenius' writings, however, it is extremely difficult to pick out the guiding ideas of the system, which is full of obscurities and, sometimes, apparent contradictions.

In the first place, how are we to account for the fact that a theologian enamoured of metaphysics and imbued with the speculative spirit of the seventeenth century should have concerned himself with education to the point of creating a 'Great Didactic'? There were indeed many educational institutions in which certain special methods had been developed; and these had been described. Ratke and Alsted, for instance, were probably the first to draw Comenius' attention to teaching problems, especially in the field of language instruction. But there was a long way to go before building up a whole philosophy of education and centring a still broader system around it. Thinkers and philosophers, from Montaigne and Rabelais to Descartes and Leibniz, had likewise made profound remarks about education, but only as corollaries to their main ideas. Not only was Comenius the first to conceive a full-scale science of education but, let it be repeated, he made it the very core of a 'pansophy' which, in his thinking, was to constitute a general philosophic system. How can we explain so original and unusual a statement of problems, in the middle of the seventeenth century?

The spirit in which Comenius sought to write the unfinished work known as the 'General Consultation' was the best proof that the art of teaching was intended to be the core of 'pansophy' itself; it also, incidentally, accounts for the failure of the enterprise. Instead of building up in the abstract that total, indivisible body of knowledge, that universal science that was to be pansophy – the doctrine of the progressive achievement of the 'world of ideas' within the superimposed worlds whose parallel strata form the universe – Comenius was forced, because he was pursuing a didactic as well as a philosophical aim (and this, by the way, is the most interesting aspect of the work), to make simplifications and assimilations which finally proved too much for him. He wished to construct his own system, but he also cherished the ambition of providing a kind of introduction to philosophy for all. Such an undertaking was unique in the seventeenth century. Hence the same problem: how are we to explain this merging of the need for a systematic basis for education with general philosophical speculation?

There is another difficulty. The foreword to *The Great Didactic* contrasts, with calm daring, the a priori method the author intends to follow with the empirical or a posteriori teaching experiments characteristic of the educational work of his predecessors.

> We venture to promise a *Great Didactic* . . . the whole art of teaching all things to all men, and indeed of teaching them with certainty, so that the result cannot fail to follow. . . . Lastly, we wish to prove all this a priori, that is to say, from the unalterable nature of the matter itself . . . that we may lay the foundations of the universal art of founding universal schools.[1]

But this promise of an a priori science of education, an 'enormous' undertaking, as Comenius himself admits, seems to come to nothing when we seek the basis for this science teaching, for example, and find that Comenius is content with the theory of sensation: 'the truth and certainty of science depend more on the witness of the senses than on anything else', or 'Science, then, increases in certainty in proportion as it depends on sensuous perception.'[2] There often seems to be some contradiction between the general principles the author proclaims and the quasi-sensualistic empiricism of so many of his formulae. Here again, it must therefore be assumed that there is an original connection between these somewhat irreconcilable statements, and that there is a synthesis linking man with nature so as to show why the educative process is the keystone of this philosophy.

But there is still more to the problem. Education, according to Comenius, is not merely the training of the child at school or in the home; it is a process affecting man's whole life and the countless social adjustments he must make. Society as a whole is considered by Comenius *sub specie educationis*. The great principles of peace and the international organization of education that make him a forerunner of so many modern institutions and trends of thought likewise stem, in his work, from this unique synthesis between nature and man, which we have just suggested as the central element of his speculation and as the explanation of the mystery of an educationist's philosophy in an age when education was a matter either of techniques unsupported by theory or of general observations without any attempt to constitute a science of teaching or education.

The key of these difficulties can be discovered only if we can find more complex basic concepts in Comenius' philosophy than those which are ordinarily taken as sufficient – concepts whose very pattern is such as to make it possible to restate the central ideas of the system in modern terms. This explains the twofold impression of outmoded form and up-to-date substance which one continually receives when reading the great educationist's works.

In this respect, Comenius' metaphysics lies between scholasticism as inspired by Aristotle and the mechanicalism of the seventeenth century. Everyone can see the kinship between his philosphy and Bacon's but, in respect of empiricism, this direct connection should not be overstressed; the main points to be kept in mind are the return to nature and the *instauratio magna*. The Aristotelian language used by Comenius is evident enough; but he constantly tends to replace the immobile hierarchy of forms by the concepts of advance and emergence, and by the idea of parallelism or harmony among the various kingdoms. In other words, he often sounds a neo-Platonic note, and Jan Patočka has quite rightly laid stress on this influence, and on that of Campanella.[3]

This approach to the question does away with some of the difficulties and sheds an unexpected light on the main outlines of the work. The central idea is probably that of nature as a creator of forms, which, being reflected in the human mind, thanks to the parallelism between man and nature, makes the ordering of the educative process automatic. The natural order is the true principle of teaching, but the sequence is dynamic, and the educator can carry out his task only if he remains a tool in nature's hands. Education is thus an integral part of the formative process to which all beings are subject and is only one aspect of that vast development. The descent or 'procession', in which the multiplication of beings consists, is matched by the upward motion at the level of human activity; and this upward motion, which will lead us to the Millennium, merges into one spontaneous development of nature and the educative process. Education is therefore not limited to the action of school and family but is part and parcel of general social life. Human society is an educative society: although this idea was not explicitly stated until the nineteenth century, Comenius' philosophy gave him a glimpse of it. Hence the disconcerting ambition of the 'pansophic' conception – 'to teach all things to all men and from all points of view' – and the fundamental union between the educational ideal and the ideal of international organization.

We can thus gain an idea of how Comenius as a metaphysician, and Comenius at grips with the countless practical problems he encountered as a language teacher and organizer of schools, managed to achieve an inner unity, finding it in the elaboration of a philosophy based on education. Comenius' genius lay in grasping the fact that education is one aspect of nature's formative machinery and so integrating the educative process into a system in which this process is indeed the essential axis.

We can see at the same time how the proclamation, at the beginning of *The Great Didactic*, of an a priori science of education can be reconciled with the apparent sensualism of so many passages in that work. Comenius was not a sensualist, though, as we shall see, he possibly failed to make sufficient use of the parallelism between the *ratio* and the *operatio*[4] to emphasize the active character of cognition. In his view, however, sensation creates knowledge in that it provides signals, as it were, that set off the spontaneous activity of the mind and link it up with the spontaneous activity that creates material things. Just as art imitates nature, according to the Aristotelian formula, so sensation (and this is a departure from the views of the peripatetics) makes it possible to re-establish the harmony between the active order of things, which teaches, and the spontaneity of the perceiving subject.

Finally, we can understand why Comenius became the apostle of international collaboration in education itself. No doubt the fratricidal struggles that constantly forced him into tragic exile and ruined his career both as theologian and as educator gave him reasons for his internationalist convictions, just as his experimental work as a teacher provided the starting-point for his thinking on education. But just as his thinking on that subject was integrated into a conception of the world where education proceeds from the formative action of nature, so his social and international ideas eventually became an integral part of his general doctrine of harmony and advance.

In short, Comenius' system is internally consistent; and the main constituent links of that coherence, though not immediately apparent, account for the major educational principles, applying to social and international as well as to scholastic affairs, which the master continually expounded. Comenius' significance for our time must therefore be sought by reference to the axes of his system; or, in other words, we must try to bring a modern point of view to bear upon the system as such, rather than upon mere individual aspects of it which, if isolated from their context, would give rise to arbitrary interpretations. Despite appearances, Comenius is really closer to us in his conception of man's development as part and parcel of that of nature than in most of the special theses he defends in his *Great Didactic*.

II

Except in a few cases, the real difference between Comenius and us is the difference that lies between seventeenth- and twentieth-century ways of thinking. We no longer believe that metaphysics will enable us to understand the development of the child or of man in society, or the interaction between man and nature, to say nothing of the laws of nature. We have put a series of separate sciences in the place of simple speculation, and Comenius' central ideas must be transposed into the context of the present day with due regard to this fundamental change in method. Such a transposition is quite legitimate; in the history of the sciences, ideas have often been presented philosophically before being built up scientifically into a more elaborate structure or subjected to systematic scientific checking. Atomistic concepts, those of conservation, etc., may be cited among countless possible examples.

Notwithstanding this difference in method, Comenius may undoubtedly be considered as one of the precursors of the genetic idea in developmental psychology, and as the founder of a system of progressive instruction adjusted to the stage of development the pupil has reached.

With regard to the first of these two points, Comenius has been interpreted either as a proponent of the theory of innate faculties – mental development being attributed to a mere maturation of preformed structures – or as an empiricist who considers the mind as a receptacle gradually filled by knowledge derived from sensation. This dual interpretation is, in itself, indicative of the author's real position. Like all partisans of spontaneity and activity in the subject, he is accused sometimes of leaning towards preformism and sometimes of exaggerating the part played by experience. Comenius' concept of the parallelism of man and nature should be closely scrutinized in connection with this particular point. Such parallelism is open to the two objections mentioned above if it is conceived as static, but it is a doctrine of dynamism to the extent that it links together the formative order of the material world and that formative order, inherent in the subject's actions, which, according to Comenius, represents both the law of development and the educative process itself.

With regard to the second point – application to teaching – Comenius works out all the implications of his belief in development. He distinguishes four types of schools for what we should now call the four major periods or stages in education: infancy, childhood, adolescence and youth. And, with really remarkable intuition, he grasps the fact that the same forms of knowledge are necessary at each of the different levels, because they correspond to permanent needs; and that the difference between these levels lies mainly in the way in which the forms of knowledge are re-outlined or restated. In a passage of *The Great Didactic* to which J. Piobetta rightly calls attention in the introduction to his French translation, Comenius presents the following proposition regarding these successive types of schools, which shows deep psychological understanding:

> Though these schools be different, we do not wish them to teach different things, but rather the same things in a different manner. I mean, all things which can make men truly men, and the learned truly learned; they should be taught in consideration of the pupil's age and the standard of his prior preparation, which should always tend gradually upward.

This is a very accurate anticipation of the successive reconstructions of the same kind of knowledge from stage to stage (e.g. from action to simple representation and thence to reflection), according to the system of consecutive development which modern genetic psychology has enabled us to analyse.

More generally, in the sixth of the 'Principles for Facilitating Teaching and Study', Comenius derives from the idea of spontaneous development the following three rules, which might be written in letters of gold on the door of every modern school – so applicable are they still, and unfortunately so seldom applied:

> 1. If the class instruction be curtailed as much as possible, namely to four hours, and if the same length of time be left for private study.
> 2. If the pupil be forced to memorize as little as possible, that is to say, only the most important things; of the rest they need only grasp the general meaning.
> 3. If everything be arranged to suit the capacity of the pupil, which increases naturally with study and age.[5]

In other words, if the child is really a being in process of spontaneous development, then individual study, independent exercises, and the transformation of capacities with age are possible; the school should therefore take advantage of such possibilities instead of ignoring them on the assumption that all education can be reduced to external, verbal and mnemonic transmission of adult knowledge through the teacher's words to the pupil's mind. True, in many other passages, Comenius seems to lay stress on receptivity. The role of images and sense data, the metaphor of the funnel into which knowledge is poured, and many other similar texts, appear to contradict these other statements. But if we bear in mind the idea of the parallel between formative nature and the training of man, it is impossible not to regard the above three rules as indicative of a recognition of the role of active development.

If we now go into the details of this theory of education based on spontaneous development, we are struck by the modern sound of a whole series of statements, despite the absence of a clear-cut theory of the relationship between action and thought.

To take this last point first, Comenius' general theory involves a concept of parallelism or corresponding harmony rather than dependence between the cognitive functions or organs (*mens, cerebrum, ratio*) and activities themselves (*manus, operatio, artes*). But as soon as he comes to deal with teaching, he corrects his approach and steadily affirms the primacy of action:

> Craftsmen do not hold their apprentices down to theories; they put them to work without delay so that they may learn to forge metal by forging, to carve by carving, to paint by painting, to leap by leaping. Therefore in schools let the pupils learn to write by writing, to speak by speaking, to sing by singing, to reason by reasoning, etc., so that schools may simply be workshops in which work is done eagerly. Thus, by good practice, all will feel at last the truth of the proverb: *Fabricando fabricamur*.[6]

Comenius goes as far as to defend this principle even in language teaching, stressing particularly that examples must precede rules: as the natural course of development consists in acting first and only afterwards reflecting on the circumstances of the action, examples cannot be deduced from a rule unless the rule is understood, but understanding of the rule derives from the retroactive organization of examples already utilized in spontaneous practice.[7]

This principle of prior activity is interpreted by Comenius in the broadest sense, in accordance with his doctrine of spontaneity, as calling into play simultaneously needs and interests, or affective motivation, and functional practice as a source of knowledge. In other words, Comenius does not want exercises in a vacuum or mere breaking-in through action, but activity based on interest. P. Bovet, in this connection, quotes several remarkable passages. The first ones among them are interesting for their broad scope: 'Do not undertake any teaching without first arousing the interest of the pupil'. And again: 'Always offer something which will be both agreeable and useful; the pupils' minds will thus be primed and they will come forward eagerly, with ever-ready attention.'[8] A third passage is interesting from the point of view of psychology. When a subject of teaching does not meet any clearly determined need, Comenius suggests recourse to the procedure of beginning something and then breaking off in order to create a gap – to start telling a tale or a little story, for instance, and break it off in the middle. What Comenius is using here is not exactly a need, but what the psychologist K. Lewin, who has studied the effect of such interrupted action, has called 'quasi-needs'.

This functional character of the activity or spontaneity in which Comenius believes naturally leads him to take a clear stand with regard to the relationship between practical and formal methods. The question is discussed in an interesting way in connection with the second principle of the 'Necessary Conditions for Teaching and Learning', which is expressed as follows: 'Nature prepares matter before giving it a form.' After a few reflections upon the need for school equipment (books, pictures, specimens, models, etc.) before lessons begin, Comenius takes up the central question of the relations between speech and the knowledge of things. As a former teacher of Latin and other languages he pronounces this decisive verdict:

> Languages are learned in schools before the sciences, since the intellect is detained for some years over the study of languages, and only then allowed to proceed to sciences, mathemat-

ics, physics, etc. And yet things are essential, words only accidental; things are the body, words but the garment; things are the kernel, words the shells and husk. Both should be presented to the intellect at the same time, *but* [and the stress is mine] *particularly the things*, since they are as much objects of understanding as are languages.[9]

In other words, behind the Aristotelian language of matter and form, or substance and accident, Comenius reverts to the progressive sequence of structure building; and, as a teacher, he is fully aware of the harm done by that enduring curse of education – verbalism or pseudo-knowledge (*flatus vocis*) associated with mere words, as distinct from the real knowledge created by the action of the pupil upon the objects of his study. Generally speaking, the terms of the second of the 'Principles for Facilitating Teaching and Study' are still more eloquent than those of the other second principle just mentioned: 'Nature', says Comenius, 'prepares the material, before she begins to give it form.'[10] From the educational point of view, this amounts to saying that functionally acquired knowledge ('in any event, young pupils must be imbued with the ardent desire to know and learn') tends spontaneously to become organized; it can therefore be co-ordinated with logical and verbal structures wherever such co-ordination is based upon a sound, 'form-desiring' initial content. Formal instruction that precedes understanding of the content, on the other hand, leads us back to verbalism.

Two of these 'Principles for Facilitating Teaching and Study' deserve special mention because they emphasize what we should now call the genetic aspect, and the functional aspect, of Comenius' ideas on educational psychology. Principle VII is stated as follows: 'Nature imparts stimulus only to fully developed beings who wish to break out of their shell.' Principle VIII: 'Nature helps itself in every possible way.' Comenius draws from these statements the following two corollaries which once again clearly assert the twofold need for education by degrees in accordance with the different stages of mental development and for a system of teaching that does not reverse the natural sequence of matter and form: 'Now the faculties of the young are forced: (i) if boys are compelled to learn things for which their age and capacity are not yet suited; (ii) if they are made to learn by heart or do things that have not first been thoroughly explained and demonstrated to them.'[11]

But the statement which probably gives the clearest indication of the genetic trend in Comenius' ideas on education is Principle I itself: 'Nature awaits the favourable moment.' After recalling that animals reproduce and plants grow according to the seasons, Comenius urges that the favourable moment for exercising the intelligence be seized upon, and that exercises 'all be performed gradually following a fixed rule'. This is again tantamount to stressing what, in modern parlance, would be called the sequence of stages of development.

We all know, however, how misleading such principles may be with regard to the actual practice of teaching. How many schools invoke the ideas of development, interest, spontaneous activity, etc., though, in real fact, the only development is that laid down in the curriculum, the only interests are imposed, and the only activities suggested by adult authority! The true measure of active teaching (a form of education that is perhaps almost as rare today as in the seventeenth century) appears to be the way in which truth is established. There is no authentic activity so long as the pupil accepts the truth of an assertion merely because it is conveyed from an adult to a child, with all the aura of explicit or implicit authority attached to the teacher's words or those of the textbooks; but there is activity when the pupil rediscovers or reconstructs truth by means of external, or internal mental, action consisting in experiment or independent reasoning. This all-important fact appears to me to have been clearly grasped by Comenius. At the last school of which he was head, at Saros Patak in 1650, he was led to reduce his fundamental principles of teaching to three:

1. Proceed by stages (*Omnia gradatim*).
2. Examine everything oneself, without submitting to authority [what Comenius called, in the etymological sense of the word, 'autopsy'].
3. Act on one's own impulsion: 'autopraxy'. This requires, with reference to all that is presented to the intellect, the memory, the tongue and the hand, that the pupils shall themselves seek, discover, discuss, do and repeat, without slacking, by their own efforts – the teachers being left merely with the task of seeing whether what is to be done is done, and done as it should be.[12]

Such an ideal of intellectual education is bound to go hand in hand with ideas on moral education, and these will serve as a kind of cross-check to verify to what extent Comenius has value for us today. In an age when the cane was a teaching instrument (it was still recommended by Locke!) and the only school morality was that of obedience, could Comenius, as we do today, extract from the concepts of development and spontaneous activity a form of moral education that would also be an extension of those formative tendencies of nature to which the great educationist constantly refers in the parallel he draws between nature and man?

The touchstone in such a matter will be the question of retributive justice or punishment. And Comenius is radically opposed to corporal punishment:

> Indeed, by any application of force we are far more likely to produce a distaste for letters than love for them. Whenever, therefore, we see that a mind is diseased and dislikes study, we should try to remove its indisposition by gentle remedies, but should on no account employ violent ones. The very sun in the heavens gives us a lesson on this point. In early spring, when plants are young and tender, he does not scorch them, but warms and invigorates them by slow degrees. . . . The gardener proceeds on the same principle, and does not apply the pruning-knife to plants that are immature. In the same way a musician does not strike his lyre a blow with his fist or with a stick, nor does he throw it against the wall, because it produces a discordant sound; but, setting to work on scientific principles, he tunes it and gets it into order. Just such a skilful and sympathetic treatment is necessary to instil a love of learning into the minds of our pupils, and any other procedure will only convert their idleness into antipathy and their lack of interest into downright stupidity.[13]

But these decisive arguments against corporal punishment are not the only ones put forward by Comenius. His whole chapter on school discipline shows his effort to use positive sanctions (encouragement, emulation, etc.) rather than negative ones. In short, his disciplinary pedagogy shows the same spirit as his philosophy, where the theologian really gives little emphasis to original sin but speaks in constant praise of nature 'in perpetual progress' (cf. the title of Principle VII concerning the soundness of education and the school).

Besides these ideas on sanctions, Comenius' central concept of moral education is again a functional one, illustrating his preference for practice by experience as against compulsion or verbal instruction:

> The virtues are learned by constantly doing what is right. . . . it is by learning that we find out what we ought to learn, and by acting that we learn to act as we should. So then, as boys easily learn to walk by walking, to talk by talking, and to write by writing, in the same way we will learn obedience by obeying, abstinence by abstaining, truth by speaking the truth, and constancy by being constant. But it is necessary that the child be helped by advice and example at the same time.[14]

But he who shows the way is not necessarily an adult. In a curious passage of the *Methodus linguarum novissima,* quoted by P. Bovet, Comenius lays stress on imitation and group games, bringing his systematic mind to outlining the seven characteristic factors of such games. He appears, in this connection, to have recognized the role of the social relationship set up among players of games, as well as the role of competition and the rules imposed upon players by the game.

After having emphasized that these main concepts of Comenius' theory of education are still very valid today, we must say a few words about his ideas on school organization. This topic will lead us, in the last part of our Introduction, to the social and international aspects of his doctrine.

At a time when education had neither stable institutions nor general programmes of study, Comenius endeavoured both to build up a rational administrative structure and to develop graduated, coherent programmes. All this elaborately detailed planning was dominated by a twofold requirement of unity: horizontal unity in respect of curricula at a given level and vertical unity in the hierarchy of the stages of education.

In the first of these two respects, it is striking that Comenius, in the sphere of science teaching (which does not appear to have been his favourite subject), has a very lively, very modern feeling of the interdependence of the sciences, necessitating co-ordination of the syllabuses:

> From this [thoughts on the interaction of the parts of a system] it follows that it is a mistake to teach the several branches of science in detail before a general outline of the whole realm of knowledge has been placed before the student, and that no one should be instructed in such a way as to become proficient in any one branch of knowledge without thoroughly understanding its relation to the rest.[15]

It is also interesting to see the importance Comenius attributes to the principle of the integration of previously acquired knowledge with that acquired later, following a pattern which is now matched even in our concepts of development.

As regards school organization, mention has already been made of the principle of subdivision into different levels corresponding to the various stages in mental development: the nursery school (or 'mother's knee') for infants; the public or national school for children; the grammar school or secondary school for older children; and academies for students. But another very interesting point about this organization is that Comenius wishes it to be the same for everyone – one school system for all:

> all the young of both sexes should be sent to the public schools. . . . they should first be sent to the Vernacular School. Some writers are of the contrary opinion. Zepper and Alsted would persuade us that only those boys and girls who are destined for manual labour should be sent to the Vernacular Schools, while boys whose parents wish them to receive a higher education should be sent straight to the Latin School. . . . From this view my whole didactic system forces me to dissent.[16]

But Comenius is not satisfied merely with these general principles. He expresses astonishingly prophetic views on a number of questions. Two examples may be given here.

One of them concerns the education of girls. In this regard, he insists upon complete equality of the sexes, in accordance with his pansophic principle that everything must be taught to everyone:

> Nor can any good reason be given why the weaker sex (to give a word of advice on this point in particular) should be altogether excluded from the pursuit of knowledge (whether in Latin or in their mother-tongue). . . . They are endowed with equal sharpness of mind and capacity for knowledge (often with more than the opposite sex) and they are able to attain the highest positions, since they have often been called by God Himself to rule over nations . . . to the study of medicine and of other things which benefit the human race. . . . Why, therefore, should we admit them to the alphabet, and afterwards drive them away from books?[17]

But if these statements in favour of girls' education are a logical consequence of his system (and that in no way diminishes Comenius' merit in remaining consistent), another corollary is much more surprising for the middle of the seventeenth century. It is his plea for the backward, 'the naturally dull and stupid'. He states that 'this renders more imperative the universal culture of such intellects. The slower and the weaker the disposition of any man, the more he needs assistance. . . . Nor can any man be found whose intellect is so weak that it cannot be improved by culture.'[18]

We thus see how the architecture of a system in which a parallel is established between man and perpetually formative nature inspires not only a functional system of education, but also a conception of the general organization of education. This leads us on to the social and international aspects of the doctrine.

III

An attempt has been made in the foregoing to show how up-to-date are Comenius' ideas on education and, in particular, how modern his methodology. The most surprising, and in many respects the most modern, aspect of his doctrine has been kept till the last – his ideas on education for everyone and for all peoples, and (what is still more astonishing) on the international organization of public education. This side of his work is what is most likely to interest UNESCO, and in some respects Comenius may be regarded as one of that Organization's precursors.

The starting point of the sociological aspect of his educational philosophy is the statement of the universal right to education on a basis of equality. If we bear in mind Comenius' conception of society as an educative society, this is simply a direct corollary of his ideas on man's place in nature. But the corollary is an extremely bold one, when we consider this ideal of democratic education in its seventeenth-century historical context.

> If this universal instruction of youth be brought about by the proper means [says Comenius], none will lack the material for thinking and doing good things. All will know how their efforts and actions must be governed, to what limits they must keep, and how each must find his right place. . . . The children of the rich and the nobles, or those holding public office, are not alone born to such positions, and should not alone have access to schools, others being excluded as if there were nothing to be hoped from them. The spirit bloweth where and when it will.[19]

In a word, the system of education proposed by Comenius is universal by its very nature; as he says, it is 'pansophic'. It is intended for all men, irrespective of social or economic position, religion, race or nationality. It must be extended to all peoples, however 'underdeveloped', as we say today, they may be; and Comenius would have commended the modern literacy campaigns undertaken for the purposes of fundamental education and social reintegration.

Comenius has sometimes been criticized for neglecting individuality. It would be easy to show that this is not the case; the importance he attributes to spontaneity, to interest, to the pupil's own ability to verify statements, and to 'autopraxy' would be meaningless if there were no respect for each child's individuality and the ways in which it differs from others. But he was mainly concerned about the universal application of his doctrine. In radical opposition to Jesuit education, which, at that time, was designed exclusively for those on the top rungs of the social ladder, Comenius defended his universalistic scheme, and its intensely democratic implications, with his ideas of a single school system and the obligation of the upper classes to see to the education of a nation's entire youth. The democratic character of Comenius' reform is not his least title to fame; it explains why he is included among the great forerunners of Soviet education as well as that of other countries.

But the 'pansophic' plan of teaching everything to everyone, and from every point of view, had many other implications, since, from the outset, it was intended to lead to a re-education of society, an *emendatio rerum humanarum*. To have a method is not enough: the means to apply it must also be found; that is, it must be introduced into a body of legislative provisions designed to ensure its propagation.

Nothing is more moving, in following Comenius' career, than the fact that this eternal exile, eternally a member of a minority group, never tired of drawing up plans for international collaboration: general schemes for universal peace, proposals for collaboration between the Churches, more specialized plans for international societies for erudite research, but, above all, plans for the international organization of public education and the final project for a *Collegium lucis*, which was to be a kind of international ministry of education.

But in order to understand these various points, we must very briefly outline Comenius' wandering life and his countless schemes that were thwarted by events. It would have been rather banal and academic to begin this Introduction with a sketch of Comenius' life (with which everyone is familiar);[20] but it will be well to remind the reader of certain features of it in connection with the study of his successive efforts and undertakings in the international field.

Born on 28 March 1592 at Uherský Brod in Moravia, he was left an orphan at an early age, and his guardians gave so little thought to his education that he was 16 before he could begin his Latin studies at the school in Přerov. His position as an orphan deprived of primary education no doubt did more to make him think about the relationship between school and personal work than a normal school upbringing would have done. With other young men belonging to the community of the Moravian Brethren (the famous Protestant sect), he was later sent to the University of Herborn where he studied Protestant theology, attended Alsted's courses, and became familiar with Ratke's famous memorial on language teaching. He soon began to write a book of the same kind for the Czech public, and also embarked on a Latin–Czech glossary which he continued to perfect over a period of forty years. On his return to Moravia, he became a schoolmaster and later the church pastor at Fulnek; but the insurrection in Bohemia, which marked the beginning of the Thirty Years War, was the start of his misfortunes. He fled from his home, lost his wife and young children, and began to wander from one lordly domain to another, writing works of consolation for his co-religionists and preaching a resigned withdrawal into the inner life of the mind. Expelled from Bohemia, he took refuge at Leszno in Poland, where the Moravian Brethren had a centre and there, at the town's secondary school, resumed teaching. It was then that he developed his ideas on education, basing himself in particular on Bacon and Campanella, those 'happy restorers of philosophy'. And it was then, too, that he started to grapple with the great problem of his time, that of method. He wrote his *Janua linguarum reserata*, which was extremely successful, and his *The Great Didactic* (originally written in Czech). But in his eyes these works were only stepping-stones to far more important objectives: he aimed at nothing less than a radical reform of human knowledge as well as of education. *The Great Didactic* itself was full of general ideas, but Comenius wished to unite and systematize them in a universal science or 'pansophy' (a term in fairly current use at that time).

This was the beginning of his international vocation, for such a systematization of knowledge, to his mind, was bound up with the co-ordination of universal currents of ideas. Starting from that moment, all his undertakings were accompanied by efforts at co-operation on a larger or smaller scale.

His first objective was the reconciliation of the Churches. Certain English friends, who were also interested in the movement for conciliation, sought to get him away from Leszno and brought his work to the attention of Louis de Geer, a Swedish philanthropist of Dutch origin; they then published Comenius' pansophic programme, without his knowledge, under the title of *Pansophiae prodromus* (a book that attracted the attention of Mersenne and of Descartes himself) and in 1641 invited him to London to help bring about an understanding between King and Parliament and to found a circle for pansophic collaboration.

These attempts failed; yet from them Comenius derived fresh ardour with which to pursue his schemes for reforming human society and learning in general.

A choice was open to him between an invitation from Richelieu to found a pansophic college in France, and one from Louis de Geer to reform Swedish schools. He chose the second offer, hoping, no doubt, to obtain Swedish political support for the Bohemian refugees. On the way, he met Descartes at Endegeest, and Jungius and Tassius in Hamburg, and found difficulty in realizing that they hardly shared his views on the forming of an international circle for pansophic research. In Sweden he was well received by court society, but his particular Protestant views were viewed with some dubiety by Lutheran public opinion. He settled at Elbing in East Prussia (which was then Swedish territory) and wrote his *Methodus linguarum novissima.* But this work he regarded as of merely secondary importance, his great problem being, more and more, the reform of human affairs.

After taking part in the Colloquium Charitativum held at Thorn in 1645 with a view to reconciling the Churches, he fell into disgrace with the Swedes (he had foreseen that this would happen but had persisted in his course, which does credit to his character). He also escaped the lures of the Catholic party, which had thought to make use of him, and without having achieved any practical gains, but having acquitted himself with dignity in difficult circumstances, he resumed a scheme for a work on the universal reform of human society by the following means: (a) unification of learning and its spread by an improved school system under the supervision of a kind of international academy; (b) political co-ordination through international institutions aimed at maintaining peace; (c) reconciliation of the Churches in a tolerant form of Christianity. The title of the work, *General Consultation on the Reform of Human Affairs,* shows that his idea was to submit a programme to those taking part in the great negotiations which had aroused and disappointed so many hopes during the seventeenth century.

Promoted to the rank of Bishop of the Moravians, Comenius returned to Leszno. In 1650, however, he went to Saros Patak in Transylvania in the – again ill-starred – hope of founding a pansophic college. There he wrote the *Orbus sensualium pictus,* the first illustrated textbook, which met with great success. In 1654 he returned to Leszno, which was razed on 25 April 1656 during the Swedish invasion of Poland. In the disaster, Comenius lost his library and many of his manuscripts, including the Latin–Czech glossary on which he had been working since his youth.

After this new misfortune, he went with his family to stay with Laurenz de Geer (the son of his former patron) in Amsterdam. He refused a teaching post but consented to the publication of his complete didactic works. He still sought to complete his *General Consultation,* but had not yet been able to do so when he died at Amsterdam in November 1670.

One of the reasons why this last work was not completed was probably the fact that its philosophical and theological basis was in contradiction with the trends of the time, which were towards the development of individual sciences, particularly mathematical physics. The total, indivisible, knowledge Comenius dreamed of had already been outstripped by the new ideal of emergent modern science. But the main reason for the failure is probably the one given earlier: the conflict between the didactic need to write a philosophy for everyone and the desire to build up pansophy itself.

None the less, this unfinished work is perhaps the one that most clearly shows the deep philosophical, educational and social consistency of Comenius' thought. The then widespread neo-Platonic idea of a 'procession' followed by a 'return' of things to their source takes on a new, and a concrete, significance in Comenius' system, because the return can occur only at the level of human activity, of that 'artificial world' which he had the considerable merit of interpreting as natural, that is, as participating in the formative mechanisms of nature itself.

Comenius' international projects, therefore, cannot be divorced from his educational ideas or from his philosophy as a whole. Peaceful international organization and the sort of international ministry of education that the *Collegium lucis* was intended to be are not merely the outcome of the dreams with which a man whose tragic life had always prevented him from carrying out his educational intentions consoled himself. As we have seen in running through the stages of his life, Comenius constantly sought, with direct relation to his pansophic ideal, to lay the foundations for that co-operation which was at least as close to his heart as his ideal of teaching. He must, therefore, be regarded as a great forerunner of modern attempts at international collaboration in the field of education, science and culture. It was not incidentally or by accident that he conceived such ideas, fitting in fortuitously with certain modern achievements, but as a consequence of the general conception of his system, which fused nature, human activity and the educational process into a single whole. UNESCO and the International Bureau of Education owe him the respect and gratitude that a great intellectual predecessor deserves.

As a conclusion, let us consider in what sense we may say that Comenius has a significance for our time.

His modernity does not lie in his methods of demonstration, since he was not master of the science of his time and did not understand the reasons that were bringing his contemporaries to develop separate sciences distinct from philosophy. But, by a paradox that is extremely instructive from the standpoint of the history of science, this metaphysician with his dreams of a complete knowledge of all things contributed, when he wrote his *The Great Didactic* and his specialized treatises, to the creation of a science of education and a theory of teaching, considered as independent disciplines. This may probably be said to be his main claim to glory, without, as we have seen, underrating his social and international action.

What accounts for the paradox and explains, in general, why Comenius is still so up-to-date despite his antiquated metaphysical apparatus is the fact that, in all the matters he took up, he was able to give an extremely practical significance to the key concepts of his philosophy. His two central ideas were no doubt that of nature as a creator of forms and that of the parallelism between the activity of man and the activity of nature. It matters little, therefore, that he should have been content with global, partly mystical, ideas about nature's forms and those of human organization. By making a more scientific study of the evolution of living beings, child development and social structures, we can rediscover Comenius' great truths, simply enlarging Comenius' framework but not destroying it. Whatever the terms used to describe these facts, it is true: that children develop according to natural laws; that education must take such development into account; that human societies also evolve according to certain laws; and that education is likewise dependent upon social structures. Comenius is thus among the authors who do not need to be corrected or, in reality, contradicted in order to bring them up to date, but merely to be translated and elaborated.

The normative principles set forth by Comenius – his central idea of democratic education and his other basic idea of the need for international organization (in all fields, but especially in education) – far from being weakened by such a transposition, emerge yet sounder and of more present application.

But the supreme merit of the great Czech educationist lies in the fact that he raised a series of new problems. Theories may pass away, but problems endure. They are ceaselessly renewed and diversified and ever retain their initial virtue of guiding and inspiring investigation. In this respect, even inadequate or inaccurate theories have often, in the history of science and technology, been of decisive importance, just because of the new problems they have raised.

From this point of view, it matters little whether the genetic conception of education propounded by Comenius, and his ideas on mental development, were drawn from neo-Platonic theories about the 'return' of beings or derived from some other philosophical source. The important thing is that, by placing this reascension at the level of human activity and in parallel with the formative processes of nature, he created a series of new problems for his century: mental development, the psychological basis of teaching methods, the relationship between school and society, the need to organize or regulate syllabuses and the administrative organization of education, and lastly, the international organization of research and education. To have realized that such problems exist and to have lost no opportunity of drawing attention to their vital importance for the future of mankind is the greatest claim to fame of the celebrated educationist.

Notes

1. J. A. Comenius, *The Great Didactic*, p. 157, London, Adam & Charles Black, 1896.
2. Ibid., Chap. XX, p. 337.
3. See Jan Patočka, 'Philosophical Basis for Comenian Pedagogy', in *Ceskoslovenska Akademie věd, Pedagogica*, No. 2, 1957, pp. 137–77, in particular, page 145.
4. Quoted from P. Bovet, *Jean Amos Comenius: un patriote cosmopolite*, p. 10, Geneva, 1943.
5. Comenius, op. cit., Chap. XVII, p. 289.
6. Quoted from Bovet, op. cit., p. 23.
7. Comenius, op. cit., Chap. XVI, p. 268.
8. Bovet, op. cit., pp. 18, 24.
9. Comenius, op. cit., Chap. XVI, p. 267.
10. Ibid., Chap. XVII, p. 266.
11. Ibid., Chap. XVII, pp. 289–90.
12. Bovet, op. cit., p. 35.
13. Comenius, op. cit., Chap. XXVI, p. 402.
14. Ibid., Chap. XXIII, p. 367.

15. Ibid., Chap. XVI, p. 274.
16. Ibid., Chap. XXIX, p. 418.
17. Ibid., Chap. IX, pp. 219–20.
18. Ibid., Chap. IX, p. 219.
19. Quoted by J. Piobetta in the Introduction to *La Grande Didactique,* p. 26, Paris, Presses Universitaires de France, 1952.
20. Comenius outlined the history of his own intellectual development several times, and modern historians have only slightly retouched the portrait he left of himself.

Chronology of the life and works of Jan Amos Comenius

by Giuliana Limiti

	Life	*Works*
1592	Born at Uherský Brod (Moravia).	
1608	Grammar school studies at Přerov.	Started to compile *Thesaurus linguae Bohemicae* [The Treasury of the Bohemian Language], a phraseological and stylistic dictionary, on which he continued to work for years. The manuscript was lost in the fire at Leszno in 1656.
1610	Studied at the University of Herborn; read Ratke's *De studiorum rectificanda methodo consilium* and was inspired by it to study the science of education.	
1612	Continued his studies at the University of Heidelberg.	
1614	Served as teacher at Přerov.	Stimulated by his reading of Ratke's work and drawing on his own teaching experience, he wrote *Grammaticae facilioris praecepta* [Principles of a Simpler Approach to Grammar], the first of his school textbooks (1st ed., Prague, 1616).
1616	Became minister in the church known as the Unitas Fratrum Bohemorum.	During the following years he worked on an encyclopedia, *Theatrum universitatis rerum* [The Theatre of All Things], in the introduction to which he enumerates the subjects lacking in Bohemian culture which he intends to develop. He planned to accompany *Theatrum* by an *Amphitheatrum* and also by a *Theatrum scripturae*, which he completed and published later on. During the years when the Bohemians were suffering heavy reverses, he wrote books on theological and moral subjects, many of which were autobiographical. They included the *Labyrint sveta á ráj srdce* [The Labyrinth of the World and the Paradise of the Heart] which he was to return to in the last years of his life.
1618	Outbreak of the Thirty Years War. Served as a teacher and minister at Fulnek (until 1623).	
1620	Defeat of the Bohemians at the White Mountain.	
1623	3 May. During the sacking of Fulnek by imperial troops, he lost his family, his house and his library, which was publicly burned.	

1626	First visit to Holland.	
1627	While living in hiding in the mountains of Bohemia, he read Bodin's *Didactica*, which gave a further stimulus to his studies. An imperial edict forced the reformers to go into exile. Comenius fled the country.	Started work on the *Didaktika česká* [Bohemian Didactic], the first version of the *Didactica magna*, conceived as part of a collection of writings to be entitled *Ráj česki o Ráj Cirkve* [The Bohemian Paradise or Paradise of the Church]. His *Navrzeni krátké o obnovení škol o králostí českém* [Brief Proposal for the Regeneration of Schools in the Kingdom of Bohemia] (1st ed., Prague, 1849) may have been a first attempt to carry out this project.

LESZNO PERIOD

1628	3 February. In exile at Leszno, in Poland: engaged in teaching and in writing his first co-ordinated series of books on education.	Between 1628 and 1633, he wrote the following books on education: *Informatorium školy matěrske* [Book for Nursery-school Teachers] (1st ed., Leszno, 1633), which was published first in German and later in Latin in *Opera didactica omnia*; this was followed by the series entitled *Vernaculae scholae classis sex libelli* [Six Booklets for the National School Classes]: *Violarium, Rosarium, Viridarium, Labyrinthus, Balsamentum, Paradisus*. Next came the *Janua linguarum reserata* [The Gate of Languages Unlocked] (1st ed., Leszno, 1631), conceived as 'seed-plot of all arts and sciences', which superseded his first textbook on the *Simpler Approach to Grammar* and was immediately translated into several languages. Lastly, as an easy introduction to the *Janua* he wrote *Januae linguarum reseratae vestibulum* [Vestibule to the Gate of Languages Unlocked]. In the following years, Comenius remained active in the educational field, explaining the use of his manuals for teachers in the towns that adopted them and making plans to improve and expand them. The culmination of this continuous educational activity was the translation into Latin of the *Didaktika česká*, as the *Didactica magna* [The Great Didactic], which was to be the first work in the series subsequently published in the *Opera didactica omnia* [Complete Didactic Works]. During the same period, the original plan to write a *Janua rerum* [Gate of Things] as a companion volume to the *Janua linguarum* or to co-operate with other scholars in writing a *Templum latinitatis* [Temple of Latin Civilization] (1636) or a *Templum sapientiae* [Temple of Wisdom] developed into the project of 'pansophic' research into universal knowledge which resulted in the drafting of *Pansophiae prodromus* [Introduction to Pansophy] (1st ed., London, 1637). This was sent to English friends asking for their private opinions, and was published by them without his knowledge.

1638	He was invited to Sweden to reform the school system. Although he declined the invitation, it encouraged him to translate the *Didaktika česká* into Latin with a view to having it distributed throughout Europe.	
1639		In reply to the comments received on the *Pansophiae prodromus*, he wrote the *Conatuum pansophicorum dilucidatio* [Explanation of the Endeavours of the Pansophists] (1st ed., London, 1639). In the meantime, he published separately a number of scientific writings, which formed part of this pansophic research, including *Physica ad lumen divinum reformanda* [Towards a Reform of Physics in Accordance with Divine Light] (1st ed., Leipzig, 1639).
1641	At Parliament's invitation (23 September), he travelled to England to collaborate in the founding of a college of learned men.	4 February. In a letter (possibly to Ludovic de Geer) he mentioned the idea of a work made up of a *Pansophia* and a *Pampaedia*, his first recorded use of that term.
1642	At Mersenne's suggestion, he was invited to France by Richelieu to reform the school system. On Richelieu's death the project was dropped. July. Meeting with Descartes at Endegeest. August. Comenius travelled to Sweden to discuss school reform with Oxenstierna. He resolved to give up his pansophic plans and returned to education.	He wrote *Via lucis* [The Way of Light] in which he proposed a general reform of cultural and political life. He was prevented from publishing it by the crisis in England, but it was eventually published in Holland (1st ed., Amsterdam, 1668). His *Consultationis brevissima delineatio* [A Very Brief Description of the Consultation] dates from the same period. It was the first real outline of what was to be his great work, *De rerum humanarum emendatione consultatio catholica* [A General Consultation concerning the Improvement of Human Affairs]. The plan that Comenius already had in mind was very close to that which he finally adopted, with the *Pampaedia* as the centre of a triad, opened and closed in turn by a two-fold introduction and a two-fold conclusion: *4. Pampaedia* *3. Pansophia* — *5. Panglottia* *2. Panaugia* — *6. Panorthosia* *1. Panegersia* — *7. Pannuthesia*

ELBLAG (ELBING) PERIOD

1642	17 October. At Elblag, in the Swedish part of Poland.	He started work on the *Methodus linguarum novissima* [Newest Method of Language Instruction] (1st ed., Leszno, 1648) which, like the *Didactica*, was to provide the theoretical basis for a new series of handbooks: *Vestibulum latinae*
1644	24 August. Took part in the Council of Orlag.	
1645	28 August to 20 September:	

	The Colloquium Charitativum of Thorum. Comenius wrote several memoranda for the delegates of the *Unitas fratrum.*	*linguae/Vorthür der lateinischen Sprache* [Vestibule to the Latin Language] (1st ed., Leszno, 1649), a new bilingual Latin–German version of the preceding *Januae linguarum reseratae vestibulum; Latinae linguae Janua reserata/Die offene Thür der lateinischen Sprache* [The Open Gate to the Latin Language] (1st ed., Leszno, 1649), a new bilingual, Latin–German version of the preceding *Janua linguarum reserata*, which was followed by a *Grammatica Janualis* [Grammar of the Gate] with *Annotationes super grammaticam novam janualem* [Notes on the New Grammar of the Gate], and lastly a *Lexicon januale latino-germanicum* [Latin–German Lexicon of the Gate] (1st ed., Leszno, 1649). *Latinitatis atrium* [The Atrium of Latin Civilization], with its companion works *Grammatica atrialis* [Grammar of the Atrium] and *Lexico atriale* [Lexicon of the Atrium], remained unpublished.
1646	Returned to Sweden for a few days to discuss his pansophic plans.	
1648	Summer. Beginning of his second stay at Leszno. 24 October. Peace of Westphalia; the Bohemian claims were ignored.	

SÁROSPATAK PERIOD

1650	May. At the invitation of Zsigmond Rákóczi, he moved to Sárospatak in Hungary, where he started work on a third series of books on education.	After explaining his project for a pansophic school in a few short texts, he wrote the *Scholae pansophicae classibus septem adornandae delineatio* [Plan of a Seven-grade Pansophic School] and this was followed by other brief commentaries. Subsequently, in response to a request for a shorter period of schooling, he drew up a new proposal in the form of the *Schola latina tribus classibus divisa* [The Three-grade Latin School], which introduced the third series of his 'school instruction' handbooks: *Eruditionis scholasticae; Pars prima: Vestibulum* [School Instruction; Part One: Vestibule], followed in this case too by the necessary practical tools: *Rudimenta grammaticae* [Rudiments of Grammar], *Reportorium vestibulare sive Lexici latini rudimentum* [Repertory of the Vestibule or Rudiments of Latin Vocabulary] and the *Commonefaction ad praeceptorem* [Instructions for Teachers]; *Pars secunda: Janua* [School Instruction; Part Two: The Gate], again followed by a *Lexicon*, a *Grammatica*, a *Historiola* and *Annotationes; Pars tertia: Atrium* [School Instruction; Part Three: Atrium] accompanied by a *Praefation ad praeceptorem* [Preface for the Teacher], the *In latinitatis atrium ingressio* [Entrance to the Atrium of Latin Civilization] and the *Lexicon latino-latinum*, which was published in Amsterdam (1st ed., 1657). There followed the *Continuatio* of his Sárospatak writings, which included the *Praecepta morum* [Rules of Life], the *Leges scholae bene ordinate* [Rules for a Well-regulated School] and,
1654	30 June. Returned for the third time to Leszno.	
1655	Dispersal of the Sárospatak school on account of a plague epidemic. Comenius lost track of those of his texts that were in the press at the time.	
1656	29 April. The fire of Leszno: Comenius lost, *inter alia*, the manuscript of *Thesaurus linguae Bohemicae* and the portion of the *Consultatio Catholica* that had already been printed.	

lastly, two educational works that were to prove successful for several generations; *Orbis sensualium pictus* [The Visible World in Pictures] (1st ed., Nuremberg, 1658), which is a *Lucidarium*, or illustrated aid, to accompany the *Vestibule* and the *Porta*, and *Schola ludus* [School as Play] (1st ed., Sárospatak, 1654), which is a dramatized version of the *Porta*. From this period is dated the *Artificii legendi et scribendi tirocinium* [Elements of the Art of Reading and Writing], which may perhaps be regarded as a preliminary draft for the *Pampaedia*.

AMSTERDAM PERIOD

1656	August. Final move to Amsterdam.
1657	Published his educational writings in two volumes.
1663	Convocation to the imperial parliament at Regensburg.
1668	28 May. Comenius was invited to give an account of his pansophic projects to the Royal Society of London.

During this period, Comenius saw to the publication of the *Opera didactica omnia* [Complete Didactic Works]: Part I, written between 1627 and 1642 (Leszno period), 482 pp.; Part II, written between 1642 and 1650 (Elblag period), 461 pp.; Part III, written between 1650 and 1654 (Sárospatak period), 1,024 pp.; Part IV, new writings produced in 1657 (in Amsterdam), 124 pp.; with short prefaces, dedications, linking paragraphs and conclusions which, together with the prefaces and autobiographical notes contained in previous writings republished on this occasion, provide material of the highest importance for understanding the development of Comenius' thought. The brief writings in Part IV are as follows: *Vita gyrus* [Life is a Circle]; *Parvulis parvulus* [The Child for Children], designed to serve as an *Auctarium*, i.e. a supplement to the *Vestibolo* and the *Porta*; *Apologia* (a defence of the approach to Latin adopted in the *Porta*); *Ventilabrum sapientiae* [The Winnowing of Wisdom]; *Ex labyrinthis scholasticis exitus* [The Way Out of the Educational Labyrinth]; *Latium redivido* [Latium Reborn]; *Typographeum vivum* [A Typography for Our Time]; *Paradisus juventuti christianae reducendus* [The Paradise to be Regained for Christian Youth]; *Traditio lampadis* [Handing on the Lamp]; *Paralipomena didactica* [Supplementary Notes to Educational Writings] (1st ed., Amsterdam, 1657). Closely linked to the *Opera didactica omnia* is the *Synopsis methodi linguarum novissimae* [Synopsis of the Newest Method of Language Instruction] (1st ed., Amsterdam, 1657), an *informatorium* for school administrators and teachers in Amsterdam.

Concurrently with the printing of the *Opera didactica omnia*, Comenius gave the final sections of the *De rerum humanarum emendatione consultatio catholica* [A General Consultation concerning the Improvement of Human Affairs] to be printed, intending to present a few advance copies to scholars and people in power.

The printing of a few copies of the following writings was completed in the course of 1656/57: *Praefatio ad europaeos* [Preface to the Europeans]; *Panegersia* [Universal Awakening] (1st ed., Halle, 1702; Czech translation, 1895); *Panaugia* [Universal Dawning].

The fate of the other parts was as follows: *Pansophia* [Universal Knowledge]: twelve pages were printed and the rest remained in manuscript; *Pampaedia* [Universal Education] (Czech translation, 1948; Latin-German: Heidelberg, 1960) remained in manuscript; *Panorthosia* [Universal Reform] (Czech translation, 1950): nine chapters and part of the tenth were printed; *Panuthesia* [Universal Admonition], which, written after 1664, was printed but subsequently lost, except for twelve chapters and part of the thirteenth; *Panglottia* [Universal Language Study], preceded by the *Novae harmonicae linguae tentamen primum* [First Attempt to Devise a New Harmonious Language], which was written in 1665 and 1666, remained in manuscript. To these must be added the *Lexicon reale pansophicum* [Universal Scientific Vocabulary]. A complete edition of the whole of the *Consultatio* has been published by the Czechoslovak Academy of Sciences (Prague, 1966).

The remainder of his life was spent reworking and editing his previous writings and in making political and religious appeals for peace and universal reform to several countries – Holland, England, Germany, Poland, Hungary, Bohemia. These writings included the *Theatrum scripturae* [The Theatre of the Sacred Scriptures], planned in his youth as a companion to *Theatrum universitatis rerum* (1st ed., 1661); *Lux e tenebris* [A Light Shining in the Darkness] (1st ed., 1663), accompanied by a *History of Prophecies*, including a reprint of the prophesies of Kotter, Drabik and Poniatowska, which he had already had printed in 1657; *Labyrint sveta á ráj srdce* [The Labyrinth of the World and the Paradise of the Heart] (1st ed., 1663); *Clamores Eliae* [The Exhortations of Elijah] (1st ed., 1665); *Angelus pacis* [The Angel of Peace], addressed to the negotiators of the peace between Holland and England (1st ed., 1667); *Unum necessarium* [The One Thing Necessary] (1st ed., 1669).

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by Marcelle Denis

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CONDORCET

(1743–94)

Bernard Jolibert

In the discussions of ideas that constitute our daily intellectual environment there are certain words that reek of cordite and certain writers who give us a sense of peace. The term 'secular' is in the first category, and Condorcet in the second.

Those who speak of secular or non-religious education or schools, or of educational 'neutrality', immediately lay themselves open to being regarded either as supporters of the 'independent school', that is private, clerical, religious, 'right-wing' and, needless to say, reactionary, or as champions of public, secular, positivist, 'left-wing' and, needless to say, anti-clerical education. Simplistic images are powerful, and ingrained mental habits so reassuring. And yet the divisions are not always where we would like them to be, and it may be that one of the first people to notice the caricatural exaggeration of this Manichaean representation of the school was in fact Condorcet, at a time when the present-day French noun denoting the principle of non-religious education did not yet exist.

Rather than bludgeon the reader with an encyclopedic account of the educational writings and thought of Marie Jean Antoine Nicolas de Caritat, Marquis de Condorcet, it seemed more useful to accompany this writer, insufficiently known in spite of media excitement over the bicentenary of the French Revolution, along the path that led him to discover the secular ideal. His approach is highly instructive for we who are not all that far removed from the conflicts of his own day.[1]

An all-round man

Condorcet was a writer, polemicist, scholar and politician,[2] but it would be somewhat rash to class him, strictly speaking, as an educator. He never had a school in his charge to test his ideas, and he left us no psychological, sociological or pedagogical analysis of the child. He showed little interest in the techniques of teaching. But to say that he was not a practising teacher and that the whole of his work was directed primarily towards philosophy, chiefly political philosophy, could not discredit the relevance or rightness of his ideas. The depth and coherence of Condorcet's thinking about education make him a philosopher and educator in his own right.

Condorcet achieved precocious distinction as a mathematician, entered the Academy of Sciences at the age of 26 and became its Permanent Secretary in 1776 and a member of the French Academy in 1782. When the French Revolution broke out he was one of the last authentic survivors of the spirit of the Enlightenment that had permeated Voltaire and the compilers of the *Encyclopédie*. In September 1791 he was elected to the Legislative Assembly to represent Paris and became a member of the Public Instruction Committee, which was responsible for the reform of schools.

In truth, the question of reorganizing education in France had long been exercising people's minds. Everyone remembered the *Essai d'éducation nationale et plan d'études pour la jeunesse* [Essay on National Education] (1763) by La Chalotais, a fiery attack on the religious monopoly over education.

Condorcet, moreover, had already given considerable thought to the question. In 1790 he had published in the periodical *La bibliothèque de l'homme public* four 'memoirs' on educational issues: *Nature et objet de l'instruction publique* [Nature and Purpose of State Instruction]; *De l'instruction commune aux enfants* [Universal Instruction for Children]; *De l'instruction commune pour les hommes* [Universal Instruction for Adults]; and *Sur l'instruction relative aux professions* [Vocational Instruction]. A fifth memoir, not published during his lifetime, was devoted to *L'instruction relative aux sciences* [Instruction in the Sciences].[3]

In view of the urgent political situation, however, it was no longer the moment for purely theoretical reflection. A group of five members of the committee were asked to prepare a general plan for education. Together with Lacépède, Arbogast, Pastoret and Romme, Condorcet set to work and presented his report and draft decree (*Rapport et projet de décret sur l'organisation générale de l'instruction publique*)[4] in 1792, but, for political reasons, it failed to receive the attention the subject required, and discussion of the report was postponed. The idea of education free of charge, compulsory, non-religious and universal contained in that report was not to become reality until a century later.

Let us take a closer look at Condorcet's ideal and at the fundamental principles on which it is based.

Caught up in the revolutionary turmoil, Condorcet was faced with a problem not very different from that encountered by any educational theory or school that attempts to carry its principles to the logical conclusion.

How can the unity of the school be reconciled with the social diversity of children? How can a minimum of knowledge and moral sentiments be uniformly inculcated in all the members of a republic – identical basic knowledge for all – in a national environment that is socially and culturally diverse and also multidenominational? How can one prevent the knowledge acquired by a few from being transformed into absolute power over the others? It was no doubt a political and a religious issue, but it was above all an educational issue, since, in concrete terms, the aim was nothing less than to group together peacefully in the same school children with different religious beliefs, from different backgrounds, with different languages and destined for different occupations, so as to produce at least the minimum of universal feeling and knowledge needed to secure the unity of the republic and, beyond the republic, the unity of the human race.

Let us try to trace the genesis of this vision through Condorcet's writings. Three essential stages stand out as landmarks on his journey from a convinced and militant anti-clericalism[5] to a more serene conception of the necessary cohabitation between religious diversity and secular unity and finally to the idea of human universality based on the ideal of knowledge and instruction for all, without which both intellectual progress and independent citizenship would be impossible.

The Protestant question

Even before the Revolution Condorcet came up against the question of a secular education in connection with the educational status of children and teachers who were Protestants. Following Louis XIV's revocation of the Edict of Nantes in October 1685, the children of Protestant families were sent to Catholic schools, and adult Protestants were forbidden to teach. Teachers were appointed by the congregations, which inspected them and defined the curricula. This allowed the Roman Catholic clergy to keep education and teachers in their grip.

In such a situation the main function of the school is not so much to instruct as to maintain above all the orthodoxy of the Catholic faith where that faith is firmly established and to proselytize in regions where it encounters resistance from other faiths. La Chalotais (1701–85), in his *Essay on National Education* (1763), had already denounced this explicit shift from instruction to indoctrination.

It was from La Chalotais, the fiery Procureur Général in the Breton Parlement, that Condorcet borrowed the principle that it is not the most important function of the school to deal with denominational issues: its object should be the greatest public utility. The teaching of political laws and the sciences is a matter for the state, the teaching of divine laws one for the Church. Condorcet distilled from this the essential principle that the first job of the school is to instruct. As a man of science and a mathematician he concluded that the school's most important task must be to transmit knowledge that is useful to everyone. Hence his condemnation of what we could call, using Bernard Charlot's expression, the 'pedagogical mystification'[6] of the eighteenth-century school. That school was expected to instruct children, but instruction was impeded by the fact that the children were placed in the exclusive grip of religious congregations and the fact that the school institution was assigned the role of ideological indoctrination. Teachers were recruited for their moral profile, not for their knowledge or skill; education was neglected in favour of the catechism; knowledge was presented dogmatically; the voice of authority overrode individual critical thought; and hatred between social groups was fuelled and legitimized – as evidenced by the Callas affair and the Chevalier de la Barre affair. All these traits were violently attacked by Condorcet in his *Fragments sur l'éducation des enfants* [Fragments Concerning the Education of Children], *Petits résumés sur l'histoire de l'éducation* [Notes on the History of Education] and *Sur l'instruction* [On the Subject of Instruction], which have been published by Manuela Albertone under the general title *Réflexions et notes sur l'éducation* [Thoughts and Notes on Education].[7]

Faced with this religious monopoly over education, Condorcet directed his attack at two levels – the political level and the school level – without drawing a clear distinction between them. During the period that he wrote several *Écrits sur les protestants* [Writings on the Protestants] (1775–81)[8] his line of argument was essentially political.

His enemy was the monopoly held by the religious congregations. It was thus necessary to start by breaking the hold of the Catholic clergy over school education and remove the school from the temptation of indoctrination. Teachers must be selected, curricula developed and buildings used that were independent of the Church. To each side its own preserve, its sphere of influence and its tasks. Let the school be responsible for transmission of the knowledge indispensable to the free citizen: reading, writing, arithmetic, civic duties and fundamental moral values; let the family be responsible for the affections; and let the Churches be responsible for the metaphysics of the faith. To achieve this outcome a state school had to be set up outside the monopoly of the Church. It was the price to be paid for a peaceful society.

In the actual schools this division of responsibilities had a theoretical consequence that was immediately perceived by Condorcet: a clear distinction had to be drawn between education in general, which included general physical, affective, intellectual and moral training, and actual instruction, which was only a part of that education. Where education in the broad sense was concerned, each person was entitled to respect for his or her metaphysical beliefs. These were already taken in hand by the family and the Church. At the very least, no one should be placed in a position of diminished civic dignity on account of his or her religious convictions. The utmost tolerance was desirable. As for instruction, on the other hand, the school should take in all citizens without exception and instruct them in everything that makes responsibility possible, that is, in everything that forms and consolidates the human being as a political citizen: reading, writing, arithmetic and the functioning of institutions – without which a person had to hand over to others his or her freedom of judgement and choice, which are the fundamental moral principles recognized by all systems of ethics.

In his report and draft decree on the general organization of public instruction, Condorcet was perfectly explicit in his definition of the aims of the school:

> To offer all individuals of the human race the means to provide for their needs and well-being, know and exercise their rights and understand and fulfil their duties; the opportunity to perfect their skill, make themselves capable of performing the social functions to which they have a right to be called and develop the full range of talents given them by nature; and in so doing to establish between citizens an authentic equality to make real the political equality recognized by the law.[9]

According to Condorcet, religious beliefs, though perfectly legitimate, should not cross the threshold of the school. Though it is not always easy to make a distinction between education and instruction in practice, the fact remains that religious beliefs should give way to the need for knowledge and 'elementary' (in the mathematical sense of an essential component) moral feelings that are essential to each citizen. To quote Milner's expression, there exists a 'strategic knowledge'[10] to which it is the school's responsibility to give priority. As Condorcet saw it, a secular ideal presupposes an anti-clerical stance and is imbued with the ideas of citizenship and political unity.

Political dogmatism

But he quickly came to see this militant anti-clericalism as superficial and, above all, inadequate. It was not enough to fight against a religion, to drive churchmen out of the schools and replace them with the ideal of a universal knowledge that would foster social reconciliation. Catherine Kintzler has convincingly shown how Condorcet became aware of the danger that dogmatism would simply be displaced.[11] Incoherent illuminism is not confined to religions or their followers. The spirit of exclusiveness, albeit clerical *par excellence*, also blows in other quarters. Condorcet encountered it personally in the two main areas of his activity, in science with Marat and in politics with Robespierre. This battle on two fronts drove Condorcet to look more closely at his secular ideal of a universal knowledge intended for each and every individual.

The growing understanding of nature and social mathematics and the idea of unlimited progress propagated by science ushered in a new form of clericalism in politics and learned societies. The goddess Reason, the god Progress and their daughter Science were becoming the objects of a new religion and new theology. Condorcet was one of the first to spot and investigate this substitute priesthood and the intellectual danger it represented: when the Church is dispossessed of its monopoly in education, it does not necessarily follow that the ideal of universal learning will capture the school and the ideal of individual liberty the republic. On the contrary, we tend to find, as Charles Coutel[12] puts it, a 'transference of sacredness', both in political action and in the world of science. Let us take political action first.

The new revolutionary power was sorely tempted to put the school immediately to the service of the victorious ideology. The educational plans of Babeuf, Rabaut-Saint-Étienne, Bouquier and Le Pelletier-de-Saint-Fargeau tended to substitute civic indoctrination for elementary instruction and at the same time to eliminate all outside influence that might still be brought to bear on children. Instruction was of secondary importance; it was the child as a whole that had to be taken in hand. Lawmakers, educators and politicians swore by the Spartan model; one deputy even proposed burning down the Bibliothèque Nationale as a source of inequality in knowledge. What could this movement be except a new clerical distortion, just as dogmatic and monopolistic as the clergy used to be?

> If you call a school a national temple, if your teacher is a magistrate, you add to the statements made in that place by that man an authority that is foreign not only to the evidence necessary to arrive at the truth but also to the type of authority that, without impeding the progress of knowledge, may influence our provisional belief – the belief that accounts for the known superiority of the Enlightenment. I am right to believe a physical experiment on the authority of a scholar whose science and accuracy I have checked; I should be an idiot to believe it on the authority of a high priest or grand official. There is no hope for the salvation

> of human reason unless this same rule is applied to ethics and politics. Let us therefore hasten to prefer reasoning to eloquence and books to speakers and bring at last to the moral sciences the philosophy and method of the physical sciences.[13]

In his *Premier mémoire sur l'instruction publique* [First Memoir on Public Instruction] (1790),[14] Condorcet had already denounced this new evangelistic trend within the education system, which distorted its main purpose. Children were roped into festivities, celebrations and parades, and the cult of the Nation, the goddess Nature and the tree of Liberty replaced citizenship, science and a sense of personal responsibility. The fact of the matter was that schools had new high priests. The most scathing remark by Condorcet against this new political class – priests in disguise – was aimed at Robespierre, who was never to forgive him for it.

The rebel Condorcet[15] maintained that all these new cults were the very negation of culture. The social idol supplanted the religious idol, political rhetoric ran high, but the result was the same – one dogma was merely replacing another, to the detriment of genuine civic education.

From an educational point of view, the consequences were serious. In order to foster the full socialization of young people, schools played on their gregarious instinct instead of helping them to reason critically for themselves, the only sound approach to science. Education was replaced by patriotic incantations and the comforting companionship of the crowd. This meant that schools no longer educated but indoctrinated, betraying their primary function, which was to impart the basic knowledge enabling all to pursue their own education.

> A man who, on completing his education, does not continue to strengthen his reasoning faculties, sustain the knowledge acquired by new knowledge, correct any errors or rectify any incomplete notions he may have been taught will soon see the fruit of his early years' labour vanish: as time obliterates the traces of any first impressions that are not renewed by further studies, the mind itself, once it is no longer in the habit of applying itself, will suffer a loss of flexibility and vigour.[16]

Science misapplied and the idea of progress

A similar phenomenon could be observed in the realm of science and was well described in the short essay entitled 'Raisons qui m'ont empêché jusqu'ici de croire au magnétisme animal' [Reasons that Have Hitherto Prevented Me from Believing in Animal Magnetism],[17] directed against Mesmer, a sort of latter-day pseudo-scientific prophet. Scientists themselves are just as easily tempted as charlatans to misuse the quasi-religious power conferred on them by knowledge. Condorcet feared the emergence of a new 'clericature', of the scientistic variety this time, that was just as stubbornly opposed to progress and as conservative as the clergy. How would the man in the street be able to distinguish between a true scientist and a quack? How was it possible to resist the temptation of the power conferred by knowledge? The theory of progress as it emerges from the *Esquisse d'un tableau historique des progrès de l'esprit humain* [Sketch for a Historical Picture of the Progress of the Human Mind] (1794) can shed new light on these two thorny issues.

In order to gain a better understanding of what progress means and entails, let us start out from its opposite, obscurantism, vigorously denounced apropos of the Chaldean priests, the archetypes of that breed of scholars who jealously sought to keep their knowledge to themselves so as to maintain their intellectual and moral hold over the people. In fact, obscurantism resides not in ignorance but in the deliberate will, artfully applied, to prevent the truths gradually acquired by science and technology from being divulged to the world at large. Whether a would-be custodian of the truth or a prey to illusion, the bogus scholar harbours illusory knowledge so as better to preserve his or her power.

By contrast, when Cordorcet speaks about 'progress of the human mind' he means not only qualitative and quantitative knowledge but also the spread of knowledge to everyone. In this sense, and despite their radically different metaphysical theories, Comenius and Condorcet are alike in seeking to create an education for all, a genuinely universal education for all human beings without distinction. This is the prerequisite for the intellectual and, especially, moral progress of humankind as a whole. Quantitatively, the mass of available truths is growing; qualitatively, all this knowledge is rationally combined in such a way that it is easier to propagate. The whole question is whether universal education has the practical means of ensuring its dissemination. This is a matter of political decision-making. Here again, Condorcet is not very different from Comenius in believing that education for all and the participation of everyone, together, in the advancement of knowledge are a pre-condition for improving the lot of humankind.

From this point of view, nations, individuals and peoples all share in the unity covered by the concept of 'the human mind'. It is the human mind that is capable of indefinite improvement: 'Our hopes in the future condition of the human species may be summed up in these three important points: the destruction of inequality among nations; the progress of equality within a single people; and lastly the genuine improvement of the human person.'[18]

As regards this improvement, we must guard against a common misconception that would distort Condorcet's thinking. This constant progression must not be seen as the realization of some immanent historical force that, though latent, has a recognizable form and a predictable purpose. Nothing could be more remote from Condorcet's theories than a deterministic representation of the course of history.

Perfectibility is a notion that in his thinking reflects a hope, an ideal, whose legitimacy is corroborated by two explicit observations made in the *Sketch for a Historical Picture of the Progress of the Human Mind.* First, the ideal of human progress, understood concretely as the improvement of knowledge and behaviour, has no internal contradictions that might undermine its logical relevance. Secondly, the history of science, technology and human relationships to these two branches of knowledge shows that there has indeed been progress over the centuries of human intellectual journeying. This latter observation leads Condorcet to believe that there are legitimate grounds for hoping that similar progress will continue to be made in the future. And since such progress has an influence on human behaviour, in other words on morals in general, there is reason to believe that there will be progress in the political and human spheres as well.

It is therefore a hypothesis in the strict sense. Condorcet never says that progress is necessary; he merely asks for it to be accepted as a possibility and he bases it entirely on the fundamental idea of human perfectibility. This is contrary both to the anthropology of antiquity, which assigns human beings a definitive place in a finite cosmos, and to Christian metaphysics, which holds that they are essentially stable in nature and divine in origin. The idea of perfectibility suggests only that the human mind is open to an indeterminate future. It may go either backwards or forwards, but in either case it cannot be confined.

To Condorcet's mind, therefore, the idea of progress is more a programme than a law of history. It will be achieved only if human beings become aware of it and decide to make it a reality. The representation of progress and confidence in their own perfectibility is what induces human beings to seek constant self-improvement. It is understandable, in this context, that Condorcet was so distrustful of dogmatism, especially when it took the form of the most extravagant scientism.

If, then, progress is indefinite, who can claim to be the custodian of a definitive theory of the universe? Marat's would-be *Découvertes sur le feu, l'électricité et la lumière* [Discoveries about Fire, Electricity and Light] (1779) are as arbitrary as Mesmer's *Le mémoire sur la découverte du magnétisme animal* [Memoir on the Discovery of Animal Magnetism] is confusing.

These two illustrations of lapses into dogma showed Condorcet that the principle alone of anti-clericalism did not provide a sufficiently sound basis for a genuinely public education system. One can be religious without having a clerical turn of mind; one can be clerical without being religious; above all, one can misdirect science and all that goes under the name of science towards the most hare-brained illuminism. How does one guard against such a temptation?

The human mind and instruction

A deeper analysis of Condorcet's thinking on the difficult question of secularity is to be found in the *Sketch for a Historical Picture of the Progress of the Human Mind*, his last work, written in difficult circumstances while he was in hiding. Outlawed by the Convention for a brochure in which he had denounced Robespierre's monarchist leanings, *Aux citoyens français sur le projet de nouvelle constitution* [To the French Citizens on the Draft for a New Constitution] (1793), he found refuge in the home of a Madame Vernet, where he wrote his *Avis d'un proscrit à sa fille* [Advice from an Outlaw to his Daughter], 'one of the finest books on morals that can be read',[19] and the *Sketch*, which remains his most famous work. Recapitulating the history of the human mind through its scientific and political achievements, he retraces its vicissitudes through progress and decadence, setbacks and triumphs, in nine chapters, before finally announcing the advent of what he calls the 'tenth epoch'. In this final chapter he considers the future progress of the human mind as it can be inferred from the present and on the basis of laws that can be seen to have regulated change in the past. This leads him to draw a distinction between two major ways of considering societies. The distinction he draws is not based directly on either economics or politics but first and foremost on the manner in which knowledge is seen to be distributed among the individuals making up a given society and, on the basis of that specific case, how science is seen to be imparted to humankind in general. The opposite of 'secular' (*laïque*) is not the religious adjective 'clerical', but the more general term 'clerk', which in the etymological sense means one who belongs to the right lot or allotment (***klerikos, clericus***), to the chosen few, as distinct from the ordinary people, the uninitiated, who have to be guided because they are ignorant (*laikos, laicus*).

There are thus, he asserts, two conceptual approaches to humankind, two philosophies of our relationship to knowledge and freedom.

The first is a 'clerical' approach, which marked the history of ideas up until Descartes and the birth of the idea of the modern republic and which differentiates between two social groups that are distinct from each other in their relationship to knowledge and power, are mutually exclusive and socially immobile: on the one hand the 'clergy', the guides who know and whose mission is therefore to provide moral leadership and guidance to the others on the basis of the truth they alone possess; on the other the 'laymen', that is to say the mass of those who have not received the beneficent enlightenment of knowledge and have no option but to defer to those who have received it. The former are the spiritual shepherds of humankind, while the latter must obey unquestioningly. Indeed, what questions could they ask, since by definition they are denied any means of knowing?

> In the dark ages, the tyranny of force was compounded by the tyranny of enlightenment, albeit feeble and faltering, yet concentrated solely in the hands of a few classes. Priests, jurisconsults, men who had the secret of trading transactions, and even doctors, trained in a small number of schools, were no less the masters of the universe than the armed warriors whose hereditary despotism was itself based on their superiority, before gunpowder was invented, as being the only ones to be trained in the art of wielding weapons.[20]

This 'clerical' conception of human relationships to power and, especially, knowledge – a conception of which the attitude of the religious clergy is but one historical manifestation – was countered by the second approach: Condorcet's idea, shared with Descartes and the tradition of the Enlightenment, that anyone at all who is prepared to make the effort has the ability to comprehend the world sufficiently well to be able to guide himself (or herself) in his private and public life. We must all take our fate into our own hands. Our own critical reasoning must be our only guide, and our own conscience our only spiritual adviser. It is for us to make our own decisions, since we are equipped to do so. As Alain Pons says: 'Two absolute certainties underlie the *Sketch*: the first is that humans are by nature indefinitely perfectible beings, and the second is that history shows that they have indeed perfected themselves over the centuries, which warrants the belief that they will continue to do so in the future.'[21]

There is a third certainty worth emphasizing. Condorcet believes that all human beings are endowed with sufficient 'reason' to progress on the path to knowledge and to guide themselves in life. Little does it matter whether it is what Descartes calls 'good sense' or what Rousseau calls 'conscience'. It is this faculty that constitutes human dignity and makes it possible to think of human beings not as dependent, submissive 'subjects' of a monarchy but as independent, responsible 'citizens' of a republic.[22]

But if human beings possess the ability to understand in order to be their own guide and be responsible for their own acts, the exercise of such an ability still has to be aroused and its substance nurtured. It is here that Condorcet's educational position is at its most forceful.

In order to prevent anyone else from taking decisions for us about something that is best left to our own judgement, the first thing to do is to form that judgement. This will be done through instruction. The priority function of the school, therefore, is to give everyone, without any exception whatsoever and not just to a chosen few as before, the basic essential knowledge that will make it possible subsequently to dispense with a 'clergy' of any kind. It is not that all individuals can become Newtons or that all have exactly the same knowledge at their disposal, which would be a caricature of equality, but all individuals can and must have access to elementary knowledge that will develop the only legitimate *kleros* – their own critical reasoning power.

> Society thus has another duty – to provide all individuals with the means of acquiring the knowledge of their intelligence and the time they are able to spend on educating themselves put within their reach. The probable result is that the scales will be weighted in favour of those who have more natural talent and those with private means, giving them freedom to spend longer on their studies; but if this kind of inequality does not subject any individual to another, and if it affords support for the weak without imposing a master on them, it is neither an evil nor an injustice; indeed, a love of equality that is afraid of swelling the ranks of the enlightened and adding to their knowledge would be a most sorry thing.[23]

For, as Catherine Kintzler rightly says, 'it is not the knowledge of the knowledgeable that oppresses the ignorant, it is the ignorance of the ignorant'.[24]

The pedagogical impact of this both humanistic and classical ideal is unequivocal. Condorcet impugns neither the Church, nor the faith, nor religious education; he merely asserts that there is a common core of instruction – radical in the sense that it is fundamental to the human person – that everyone must be given, not only for political reasons of national unity but, above all, as a simple humanitarian duty. All must receive instruction, all are destined to become free, and there is no freedom possible without instruction.

Educational institutions as a liberating force

What are the essential institutional features of such instruction? Condorcet sets them out and elaborates on them in a plan that is possibly the most comprehensive and reasoned piece of writing of its kind during the revolutionary period, at a time when there was no dearth of pronouncements on various aspects of education and instruction. This was his *Rapport et projet de décret sur l'organisation générale de l'instruction publique* [Report and Draft Decree on the General Organization of Public Education] (1792).[25]

Drawing a distinction from the outset between 'instruction', which consists in transmitting fundamental moral tools and sciences, and 'education', understood as the inculcation of social and religious beliefs, Condorcet confers full powers on the republic to expand the former and if need be make it compulsory. But whereas instruction must become public, education, for its part, must remain private. Religious worship is not admissible in public instruction, it is true, but this clearly implies that the state must allow individual beliefs absolute freedom in private. The secular ideal is actually a liberating force for the Church.[26]

The militant anti-clericalism of his early days was by now a thing of the past, and Condorcet was to take up the cause of Protestants and Jews threatened with prosecution and also of Christians and atheists harassed as the 'Terror' drew nigh.

In his report Condorcet coherently draws the logical consequences from his philosophical theory of the individual and the citizen. Since instruction is the price to be paid for freedom it must be compulsory and free of charge so that it is accessible to all: to the poor as well as to the rich, to the less gifted as well as to the more gifted, to women as well as to men.

> Instruction must be universal, in other words it must be extended to include all citizens. It must be shared out as evenly as possible, subject to necessarily limited expenditure, the geographical distribution of the population and the amount of time children can spend on it. At its various levels it must encompass the entire system of human knowledge and make it possible for individuals at any age in life to store up what they have learnt or acquire new knowledge.[27]

What precise measures does the report propose? Let us sum up the main points.

Condorcet proposes five levels of public instruction.

The first level, called 'elementary' because it would be for the teaching of the 'elements' of all knowledge (reading, writing, arithmetic, morals, economics and natural science), would be compulsory for all for four years.

The next would be the secondary school, of three years' duration, teaching grammar, history and geography, one foreign language, the mechanical arts, law and mathematics. It would be 'intended for children whose families can do without their labour for a longer period of time'. The teaching at this and the first level would be non-specialized.

Then would come the institute, which would be responsible for 'substituting reasoning for eloquence and books for speechifying, and for bringing philosophy and the physical science methodology into the moral sciences'. The teaching at this level would be more specialized. Pupils would choose their own course of study (at least two courses a year) from among four possible classes: mathematics and physics, moral and political sciences, science as applied to the arts, and literature and fine arts.

The fourth level would be the *lycée*, the equivalent of our university, with the same classes as the institute and 'where all the sciences are taught in full. It is there that scholars/teachers receive their further training'. Education at this and the first three levels was to be entirely free of charge.

The last level would consist of the National Society of Science and the Arts, a research institute responsible for supervising the formal education system as a whole and appointing teachers. Its role would be one of scientific and pedagogical research.[28]

The basic idea underlying this report is that although knowledge does confer power such power cannot become absolute without exposure to risk. Although not everyone can know everything, at least each person can be sufficiently educated not to be taken in by others. Condorcet's secular ideal comes down to this:

> Education, however egalitarian, is bound to increase the superiority of those who by nature are better organized. But equality of rights will be preserved if this superiority does not entail any real dependence and if each individual is sufficiently educated to exercise, of her or his own accord and without having to submit blindly to another's judgement, the rights guaranteed to her or him by law. The superiority of a few, far from being a bad thing for those who have not been so well-favoured, will thus contribute to the good of everyone, and human skills and knowledge will become the common heritage of society.[29]

It is for the state to transmit the knowledge that is vital to everyone; as for the rest, individual freedom is equally necessary to the scholar and to the ordinary citizen. It is that freedom that conditions the progress of science, understood, as we have seen, as the 'ever-perfectible human mind'.[30]

One last word on the fate of this report, which foreshadowed Condorcet's own fate. His plan, regarded as unadventurous and over-liberal, fell into oblivion as soon as it had been submitted to the National Assembly on behalf of the Public Instruction Committee on 20 and 21 April 1792. As for Condorcet, who received a warning that the house of the devoted Madame Vernet was about to be searched, he left his hiding-place and made his way to Fontenay-aux-Roses, where his friend Suard declined to take him in as he had hoped. He was arrested at an inn in Clamart and gave his identity as Pierre Simon, no doubt to avoid trouble for his relatives. On the day after his imprisonment (28 March 1794) the prison warden found him dead. Suicide? Exhaustion? Murder? He was subsequently identified only by his silver watch and his copy of Horace, which never left his side. His final resting-place is unknown.

And yet tribute was paid to him by Marie-Joseph Chénier through the important decree of 18 December 1794: 'Primary studies constitute the first level of education: they will provide instruction in the knowledge strictly necessary to all citizens. The persons responsible for teaching in such schools are called *instituteurs*.'[31] Thus the republic rendered homage to the 'last of the philosophers, without whom it would never have existed'.[32]

Notes

1. See in this connection the review *L'enseignement philosophique* devoted to 'L'idée de République' (Paris), Vol. 39, No. 3, January/February 1989.
2. E. Badinter and R. Badinter, *Condorcet, un intellectuel en politique*, Paris, Fayard, 1988.
3. These five memoirs were published in Paris by Edilig and edited by C. Coutel and C. Kintzler (1989). The first memoir, the most general and most philosophical of them, was published in 1989 by Klincksieck, Paris.

4. 'Rapport et projet de décret sur l'organisation générale de l'instruction publique', *L'instruction publique en France pendant la Révolution*, pp. 105–51, Paris, Klincksieck, 1990.
5. Condorcet, *Réflexions et notes sur l'éducation*, pp. 106 et seq., Naples, Bibliopolis, 1983.
6. B. Charlot, *La mystification pédagogique*, Paris, Payot, 1980.
7. Condorcet, *Réflexions et notes sur l'éducation*, from Condorcet's papers kept in the Library of the Institut de France in Paris (MS-848-885), Naples, Bibliopolis, 1983.
8. Condorcet, *Œuvres*, Vol. V, pp. 393–573, Paris, Arago.
9. Condorcet, 'Rapport et projet de décret . . .', op. cit.
10. J. C. Milner, *De l'école*, Paris, Seuil, 1984.
11. C. Kintzler, *Condorcet, l'instruction publique et la naissance du citoyen*, Paris, SFED, 1984.
12. *Analyses et réflexions sur Condorcet*, Paris, Ellipses, 1989; see also C. Coutel, 'Laïcité de Condorcet', *L'enseignement philosophique*, July/August 1989.
13. Condorcet, 'Rapport et projet de décret . . .', op. cit., p. 119, note 1.
14. Condorcet, *Premier mémoire sur l'instruction publique*, Paris, Klincksieck, 1989.
15. Badinter and Badinter, op. cit.
16. Condorcet, *Premier mémoire . . .*, op. cit., p. 47.
17. 'Condorcet', in R. Darnton, *La fin des Lumières*, pp. 199 et seq., Paris, Perrin, 1984.
18. Condorcet, *Sketch for a Historical Picture of the Progress of the Human Mind* (trans. J. Barraclough), New York, Noonday, 1955.
19. 'Condorcet', *Dictionnaire de pédagogie et d'instruction publique*, p. 347, Paris, Hachette, 1911.
20. Condorcet, *Premier mémoire . . .*, op. cit., p. 38.
21. Introduction to Condorcet, *Sketch . . .*, op. cit.
22. See also on this subject, A. Koyré, 'Condorcet', *Études d'histoire de la pensée philosophique*, pp. 103–26, Paris, Gallimard, 1971.
23. Condorcet, *Premier mémoire . . .*, op. cit., p. 39.
24. C. Kintzler, 'Condorcet: savoirs, liberté, lois', *L'enseignement philosophique* (Paris), Vol. 38, No. 1, September–October 1987; special issue on the Enlightenment.
25. *L'instruction publique en France . . .*, op. cit.
26. E. Borne points out that this ideal stems partly from the actual Gospel, 'Render unto Caesar the things that are Caesar's and unto God the things that are God's'. *L'enseignement philosophique* (Paris), Vol. 39, No. 3, January/February 1989, pp. 61 et seq.
27. Condorcet, 'Rapport et projet de décret . . .', op. cit., p. 107.
28. See the interesting comparison between Talleyrand's and Condorcet's drafts, in *Cahiers de Fontenay*, No. 5, December 1976. Catherine Fricheau's article was taken up by M. Crampe-Casnabet in *Condorcet, lecteur des Lumières*, p. 128, Paris, Presses Universitaires de France, 1985.
29. Condorcet, *Premier mémoire . . .*, op. cit., p. 37.
30. Condorcet, *Fragment sur l'Atlantide*, p. 320, Paris, Flammarion, 1988.
31. *L'instruction publique en France . . .*, op. cit., p. 10.
32. J. Michelet, *Les femmes de la Révolution*, Paris, 1854, quoted in Badinter and Badinter, op. cit., p. 621.

CONFUCIUS (K'UNG TZU)

(551–479 B.C.)

Yang Huanyin

Eminent teacher, philosopher and political theorist, and founder of its feudal system of education, Confucius is one of Ancient China's most famous figures, a man whose practical experience and deep thinking on the subject have left their mark on educational development in his own country and elsewhere. Revered in Antiquity as the 'Supreme Sage' and the 'Model for Ten Thousand Generations', Confucius now enjoys universal acclaim; his remarkable and lasting contribution to teaching and education has ensured him a place in their history, as well as in the history of culture, both in China and beyond. The influence of his pedagogy remains perceptible today. Recent years have seen a renewal of interest in Confucius, and his philosophy, in particular, has become the object of renewed assessment.

Biographical note

Confucius (551–479 B.C.), whose patronymic was Qiu and given name Zhongni, was born at Quyi in the principality of Lu (today's Qufu in Shandong Province), to which his forebears, aristocrats from the principality of Song, had fled for political reasons and where their fortunes had gradually declined. His own father, a minor official, died when Confucius was still a child, leaving the family in poverty. Initially employed in a low-grade post with responsibility for livestock and granaries, he rose through the administrative hierarchy to become – at about the age of 40 – Prefect (*Zai*) and Director of Public Works (*Sicong*) in the city of Zhongdu, and then Minister of Security and Justice (*Sikon*) for the principality of Lu. Later, he travelled with his disciples in Wei, Cao, Song, Zheng, Chen, Cai and other parts of the country, unsuccessfully expounding his political opinions and moral precepts. He returned to Lu at the end of his life, and spent his final years writing and teaching.

Confucius took lifelong delight in learning as well as teaching, and lived to see his reputation as an accomplished polymath spread far and wide. Before his time, under the Zhou Dynasty, schooling took place within government offices and was dispensed by public officials; general education, the prerogative of the nobility, was denied to the common people, and there was no such thing as a full-time teaching profession. Young aristocrats received a civil and military education based on the 'six arts': rites, music, archery, chariot-driving, calligraphy and mathematics. The end of the so-called Spring and Autumn Period, with which Confucius' life coincided, was marked by violent upheavals as Chinese society based on slave-ownership was transformed into a feudal society; the political and economic underpinning of 'education for and by the administration' was collapsing and culture was acquiring a more popular base. In breaking the aristocratic monopoly of learning and setting up a private academy that was accessible to rich and poor alike, Confucius was moving with his times. 'My teaching', he declared, 'is open to everyone, without distinction.' He was in his thirties when he first accepted disciples; he took in 3,000 in all, seventy-two of whom progressed to complete mastery of the 'six arts'. In scope, enrolment and quality of teaching, the school of Confucius was unique for its age; both during and after its founder's lifetime and posthumously, it exerted a considerable influence in the political, economic, cultural, ethical and moral spheres. Confucius devoted his energies to this undertaking for almost half a century, and his efforts were interrupted only by illness and death at the age of 72. In the course of this half century, Confucius, not content to give excellent training to a large number of students, constantly distilled his own teaching experience, thus working out his own educational doctrine.

Who should be educated?

The teacher's first task is to identify his audience. In this connection, Confucius stated that his lessons were destined for all men, without exception (*Analects*, Wei Ling Gong). His pupils came from the lowest as well as the highest levels of society, and access to education was thereby considerably broadened. Opening more widely the doors of learning, he hastened the development of general education in Ancient China, thus contributing both to political reform and to the dissemination of culture and, at the same time, revealing the humanist character of Confucian teaching, which was to have an unquestionable influence on the private schools and academies of feudal society. This approach also helped to create the conditions whereby the emergent land-owning class could accede to the authority conferred by learning and produce talented men from its midst.

Role and objectives of education

Starting from the political principle that virtue was a prerequisite of government, and the psychological observation that 'by nature, men are much alike; their practices set them apart' (*Analects*, Yang Huo), Confucius demonstrated that education plays a fundamental role in the development of society and of individuals alike. Not only does it offer a means of ensuring the supremacy of virtue; it can also alter human nature and improve it in qualitative terms. By raising individual moral standards, it renders society in its entirety more virtuous: the kingdom is well administered, orderly and law-abiding to the extent that all within it follow the path of righteousness. Although it may be an exaggeration to state that the supremacy of virtue can be guaranteed by education alone, special concern for the latter, and the notion that action at the level of individual morality is called for if the moral level of society is to be raised, remain topical today. The teachers and political leaders of the feudal era were all imbued with these principles; most of them emphasized that education had an improving effect on individuals, and promoted order and security throughout the land; hence it should be developed. But Confucius was at the origin of that concern for education which gradually became one of the great traditions of China's feudal society.

Another of the teacher's tasks is to determine what type of person he is to form. Denouncing the favouritism and the passing of office from one generation of nobles to the next that prevailed during his time, Confucius recommended appointment according to merit and 'promotion of the ablest' (*Analects*, Zi Lu). He considered that the goal of education was to produce capable individuals (*xiancai*) – whom he also called *shi* (gentlemen) or *junzi* (men of quality) – who 'combined competence with virtue' and whose subsequent careers in administration and government would bring about the ideal of a kingdom managed with integrity. 'You believe you have studied enough? Then take up a post in the civil service', he advised his disciples (*Analects*, Zi Zhang). This radical stand against the principle of the hereditary transmission of posts was reflected in the system of training and appointing officials that was later adopted in feudal society, and served as the theoretical basis for the selection process introduced under the Han Dynasty, and later for the imperial examination procedure that would be followed throughout the Sui and Tang Dynasties and up to the fall of the Manchus; it was also central to the feudal education system as a whole. The Chinese people have to this day kept faith with these two traditions: character development aimed at competence together with moral integrity; and appointment according to merit.

Content

In conformity with these objectives, Confucius determined that the twin pillars of education should be moral instruction, which would have priority, and the imparting of knowledge.

Moral instruction, which had to take pride of place, since what was needed were individuals of outstanding virtue who would assist the prince in governing with integrity, thus became the basis of Confucian teaching. In deference to the interests of the feudal land-owning class, Confucius reshaped the moral concepts of the past, and proclaimed a series of new rules designed to put an end to the political chaos and moral decadence of the times. His ethics, philosophy and politics are indissociable, the first of these being characterized by a rare vitality which was the driving force of feudal morality and civilization for more than two millennia and which was centred on 'humanity' or 'benevolence' (*ren*), which also signifies love for one's neighbour. This virtue manifests itself in all types of relations between human beings and contains the germ of other qualities: filial piety (*xiao*), respect for the elderly (*ti*), loyalty (*zhong*), respectfulness (*gong*), magnanimity (*kuan*), fidelity (*xin*), diligence (*min*), altruism (*hui*), affability (*wen*), kindness (*liang*), frugality (*jian*), tolerance (*rang*), indulgence (*shu*), wisdom (*zhi*) and courage (*yong*); it also helps in avoiding all forms of excess, promotes fearlessness in the face of difficulties, assists in distinguishing what is to be cultivated from what is to be eschewed, and encourages honest and righteous conduct. All these qualities stem from *ren*, which enjoins human beings to show mutual sympathy, solicitude and respect, and to watch over one another. In order that all these precepts might serve to enhance the responsibility of individuals and society alike, Confucius stressed that each man should cultivate virtue and should receive a moral education. Thanks to individual efforts in that respect, there would be order in family affairs, the country would be well governed, the people would live in security, and peace would everywhere prevail. Moral education was thus for Confucius the means whereby his ideas concerning virtue might be materialized. As the founder of feudal China's education system he defined its basic content by working out his concept of moral instruction, and established guidelines for its further development. His ethics can, moreover, be said to have codified the whole network of social relationships in feudal China.

But Confucius was equally concerned with the intellectual development of his disciples, that is to say, with the inculcation of culture, abilities and skills. In order to instil in them the moral values of feudal society, the basics of an all-round culture and the capacities required to exercise official responsibilities, he drafted six manuals, which were considered to be the foundation of teaching and learning: the Book of Odes (*Shi*); the Book of History (or Documents) (*Shu*); the Book of Rites (*Li*); the Book of Music (*Yue*); the Book of Changes (*Yi*); and the Spring and Autumn Annals (*Chunqiu*). These didactic works, which deal essentially with social relations and with ethics but also address a large number of other subjects, including philosophy, history, politics, economics, culture and musicianship, constituted the first relatively comprehensive teaching manuals in Chinese history. Since Xunzi's 'Exhortation to Study', they have been respectfully referred to as *jing* (canonical works or classics). The Book of Music has been lost, but the five other Confucian classics served for more than 2,000 years as the basis for education in feudal China. Nowhere in the world has any other didactic work ever been referred to with such consistency over such a long period. Beginning at the time when the Han Emperor Wudi founded the Imperial College in 124 B.C. and decreed that 'all schools of thought except the Confucian doctrine shall be proscribed', feudal China built the cult of Confucius and the reading of his canonical works into the foundations of an education that had been designed to serve the interests of the ruling class, according them a pre-eminence that would not be challenged until 1919, by the violent Fourth of May Movement.

Besides the six classics, which were designed to provide a general culture, Confucius' teaching also covered the six arts (rites, musicianship, archery, chariot-driving, calligraphy and mathematics), the purpose of which was to impart skills and know-how through practice; according to Confucius, study of the six classics, coupled with mastery of the six arts, would inculcate sound moral sense and a solid cultural grounding which were necessary for the competent exercise of public office.

Rooted in political and moral principles, Confucian education is concerned solely with what constitutes the makings of the 'man of quality' and with the tools that the official must master. Natural sciences are hardly touched upon; trade and agriculture are completely ignored. Another outstanding feature of the educational theory and practice of Confucius and the feudal teachers who succeeded him is disdain for manual labour and those engaged in it. Except for a few minor alterations, the content of education continued to reflect the options and priorities established by Confucius throughout the feudal period.

Some principles

In the course of his lengthy career as a teacher, Confucius steadily put together a system of principles which had a distinctly materialistic slant. Many of them correspond to the general laws of pedagogics. His essential concerns were: to provide students with an education that matched their aptitudes; to inspire and guide them; to lead them by stages; to instruct oneself while teaching others; to explain the present in the light of the past; to devote oneself conscientiously to study and to take delight in it; to combine theory with practice and applied study with abstract meditation; to ensure that personal behaviour was in conformity with the principles examined; to encourage independent thought; to take account of the age of the learners; to practise self-control and self-analysis; to set a good example; to correct one's errors and improve oneself; to curb evil and exalt the good; to welcome criticism; to accept correction; to forget past affronts; etc. For Confucius, all these principles were the product of a profound intuition frequently confirmed by practice.

Teachers

Confucius had a great deal to say on this subject. Considered to be a remarkable teacher himself, he was revered throughout feudal society and served as a model for countless generations of his successors.

He believed that a good teacher should first and foremost be passionately and conscientiously committed to his work. His own knowledge must be broad in scope and fully mastered if his pupil was to benefit from exposure to it. Confucius further believed that in order to elicit good results, the teacher must love his pupils, know them well, understand their psychological particularities, give thought to ways and means of facilitating their access to knowledge and, to that end, develop an effective methodology. The hallmark of a teacher's virtue, in Confucius' eyes, was tireless commitment through his lessons to his pupils' development. He must also possess firm political convictions; show modesty and discretion in his relations with others; convey his knowledge in a disinterested fashion, keeping nothing to himself; express himself elegantly and in lively fashion; cultivate his own personal morality; and match his deeds with his words.

The ethical code of education which Confucius elaborated, his own performance as a teacher and his attachment to the 'mean' are still considered today as Confucius' finest and greatest contributions to the cause of learning.

Education and economics

Confucius was not unduly concerned with the links between education and economics, but he nevertheless maintained that prosperity should take precedence over education. An educated, vigorous and prosperous population was, to his mind, the sign of sound administration; in other words, not only was education important, but its development must be materially based on development of the economy. A state can be well administered only if its population is in good heart and if its prosperity permits steadily increasing access to education. This concept of educational economics reflects an embryonic materialism.

Educational psychology

In this domain, Confucius, wittingly or unwittingly, applied some of the basic tenets of psychology to the solution of concrete problems with which he was confronted, and he formulated a number of observations in the domains of what we now refer to as differential psychology, learning psychology, moral psychology and teaching psychology. As regards the educational process itself, his remarks concerning the differences between his disciples – differences of intelligence, aptitude, character, aspiration, interest and taste – reflected an attentive attitude that led him to put forward a number of pedagogical principles concerning, for example, adapting teaching to the aptitudes of the pupil and the effectiveness of clarifying and encouraging pupils' questions.

But Confucius' thought on educational matters was not confined to these domains, and scholars who have recently examined other aspects of his thinking, notably in the fields of philosophy and sociology, consider that they deserve attention, especially for their rational qualities.

It will be seen from the foregoing that Confucius had elaborated a conceptual framework that was in keeping with the interests of the land-owning class in the China of his day, and began himself to put his ideas into practice. His pioneering work, occurring as it did at a time when the old slave-owning system was being replaced by a feudal one, obviously had a revolutionary impact, and assured for Confucius a key place in the history of education in China, without which its development could not be properly understood.

The influence of Confucius

If Confucius' thought had a profound influence on the development of Chinese society, and particularly that of its education and moral science, at different times and under a variety of circumstances, it also left its mark on a great number of Eastern and Western countries, which it reached through a wide variety of channels. Confucius and his doctrine do not belong only to China; he is acknowledged throughout the world as a major figure of universal civilization and culture.

Confucian thought moved eastwards at an earlier date than westwards, and its imprint in the East was more profound. His ideas reached Korea and Viet Nam more than 2,000 years ago, during the Qin and Han Dynasties. In A.D. 285, his ideas were communicated from Korea to Japan. From Viet Nam, they were transmitted to a number of South and South-East Asian countries where, as the centuries passed, they entered the very fabric of national customs and traditions, becoming – as in China – part of their fundamental culture. Many scholars postulate the existence since ancient times of an 'area of Confucian culture' centred on China, with Korea, Viet Nam and Japan as its principal components. Confucianism joined Buddhism, Christianity and Islam to become one of the four major cultural systems of the planet.

From the time it began to spread, Confucian thought deeply influenced the political, economic and cultural, and to an even greater extent the educational and ethical, development of the countries which it reached. This was especially the case in Korea, Japan and Viet Nam which – when Confucianism arrived – were either in a state of transition from a primitive to a slave-owning society, or moving from the latter into feudalism. None of them had written languages, still less school education. With the introduction of the Confucian classics, they adopted Chinese characters, started to publish books and followed the Chinese example in establishing schools where the Master's doctrine was taught. The propagation of Confucianism may be seen as being directly responsible for the emergence of their systems of schooling. Confucianism left its mark on the training of scholars as it did on the recruitment of officials, while schooling in each of these countries, at central as well as local levels, in public or in private establishments, at higher and at lower grades, and whether in matters of goals, content, selection and promotion of teachers, or assessment and placement of students, is characterized by a remarkable fidelity to Confucian principles. Indeed, Confucius became a cult figure in all schools and at all levels. In Japan, he was revered as the 'Supreme Sage and Foremost Teacher'; in Viet Nam, as the 'Teacher of Ten Thousand Sovereigns'. He was taken as a model by successive generations, and the supreme incarnation of virtue, an object of veneration for teachers, pupils and society as a whole. Confucianism also permeated family and social education, the education of women and small children, the education dispensed at the Imperial Court and the education of expatriate students. In all these countries, as in China, the Confucian classics served as didactic models during the feudal period, education being based on respect for Confucius and the reading of his canonical works. They may thus justly be claimed to have significantly extended the scope of the pattern of education which Confucius had initiated in China.

As for the recruitment of officials, examinations based on Confucianism as applied in China were organized over a period of eleven centuries (from A.D. 788 to 1893) in Korea and for more than eight centuries (from 1075 to 1919) in Viet Nam. Such was not the case in Japan, but its people, from their supreme authorities down through the administrative hierarchy at all levels, including the Shogun and their followers, were the first to venerate Confucius and to practise the classics. Familiarity with Confucius' ideas and canonical works was also an important criterion for the appointment of officials. Today, Confucius still has an important place in the education system of countries of the region. Japan, Singapore, the Republic of Korea and southern Viet Nam (before the reunification of the country) remained particularly faithful to his thought, especially in the domain of moral education. In 1982, the Government of Singapore exhorted its citizens to study and to disseminate Confucius' teachings, which were described as embodying 'the essentials of the art of government' as well as the moral rules of life in society; classes in Confucian ethics were subsequently included in secondary education, with large-scale promotional campaigns. In the other Asian countries, the past and present influence of Confucianism on education, although less far-reaching, is nevertheless to a greater or lesser extent perceptible, pointing inevitably to the conclusion that no other teacher has been as influential as Confucius in this part of Asia.

In the early 1600s, Jesuits returning from missionary work in China spread the ideas of Confucius in the West, where they had a special impact on the philosophers of the Enlightenment. Europe at the time was in the throes of bourgeois-revolution, and these thinkers turned to Confucius for support in their opposition to despotism and the principle of divine right. His atheistic philosophy, his moralistic vision of politics, his notion of the inseparability of politics and ethics, and the stress which he laid on the economic significance of agriculture filled philosophers such as Holbach, Voltaire and Quesnay with the most fulsome admiration; they referred to his works in denouncing the abuses of their age, often attributing their own criteria to him. It was thanks to their enthusiasm that the West became truly enamoured of Confucianism, a state of affairs which is still very much apparent today. More and more international symposia on Confucian thought are being held; not content with new studies of Confucianism, Western scholars are investigating the modernity of his doctrine.

Although, during his lifetime, Confucius was unable to attain his goals as a teacher, his posthumous contribution to the history of culture and of teaching in China and in other countries throughout the world has won for him not only the reputation of 'Supreme Sage' and 'Teacher of Ten Thousand Generations' in Chinese feudal society, but also what amounts to universal esteem. Since ancient times, many countries have compared their leading scholars, educators and thinkers to Confucius: the distinguished teacher Ch'oe Ch'ung, who opened the first private school in the Kingdom of Koryo, was styled 'the Confucius East of the Sea'; the Enlightenment philosopher Quesnay, 'the European Confucius'; the great German poet Goethe, 'the Confucius of Weimar'; as a token of the respect and admiration which he inspired, the Italian Jesuit Matteo Ricci, who established parallels between Western and Chinese civilization, was known as 'the Christian Confucius'.

In China before 1949, his birthday was celebrated as a holiday; this is still the case today in Taiwan, in Viet Nam and in the Asian communities of the United States – an occasion marked by commemorative events and ceremonies to honour especially meritorious teachers, and to encourage others to draw inspiration from the virtues of the great educator.

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ROGER COUSINET

(1881–1973)

Louis Raillon

> Education can no longer be an action exerted by a master on his pupils, for such action has proved futile; it is, in fact, an activity whereby the child works towards his own development, in a favourable environment and with the help of an educator who is now there in a merely consultative capacity. It follows that *active methods are not teaching but learning tools*, that they must be placed in the hands of the pupils alone and that any teacher introducing them into his class will be prepared not to use them, and in so doing will refrain from teaching.

This was how, at a teachers' congress in 1954, Roger Cousinet briefly and somewhat bluntly conveyed the message that he had spent the second half of his long life putting across, after devoting many years to experimenting with the practical implications of the New Education. To Cousinet's mind, this substitution of learning by the pupil for teaching by the teacher brooked no compromise. In his view, the introduction of the New Education into schools implied first and foremost a radical change in the educational attitude of the teacher in his relationship with his pupils. Such a radical view was at the same time appealing and difficult to accept, but it was based on years of experimental work and this in itself brought out the scientific character of a teaching method rooted in a true knowledge of the child and of the laws governing the child's development. The resistance with which his theories met came as little surprise to him, however. He remarked wryly: 'We are most difficult to please, for our attitude is not very consistent with our principles. We do everything we can to make sure that children can do without us, but are upset whenever they succeed in doing so' (Cousinet, 1954).

Who, then, was this man? What sort of experiments did he carry out? What conclusions did he come to? Are his work and ideas still of interest to educators today? These are the questions that this study will set out briefly to answer.

Roger Cousinet's career

After receiving his *baccalauréat*, at the age of 21, in Paris, Cousinet supplemented his solid grounding in the classics with three years of preparatory classes for admission to the *école normale supérieure* (higher teacher-training college). He did not enter the *école normale*, but enrolled at the Sorbonne for an arts degree and for the diploma (*brevet élémentaire*) entitling him to teach in primary school for a minimum of five years. Cousinet, a cultivated young man from an artistic, middle-class background, then decided to work for the *concours de l'inspection primaire*, the examination for primary-school inspectors. These years spent among children were highly instructive, as he systematically observed their reactions both in the classroom and in the playground. What interested him was not so much children as pupils but children at liberty, at play, in their complex relationships with other children. It was during this period that he started working with Durkheim on a doctoral thesis on *La vie sociale des enfants* [The Social Life of Children]. Meanwhile, he worked together with Alfred Binet, who was devising his intelligence test and founding his theory of experimental teaching. He became editor of an educational journal entitled *L'éducateur moderne*, which gave him the opportunity to meet, and publish the works of, Decroly, Claparède and Ferrière; to write on the work of Maria Montessori; and to publish abstracts in French of the works of Dewey and Stanley Hall. In 1910, he was appointed primary-school inspector, which meant that he was responsible for about 100 state schools, and continued to serve in this capacity until 1942, his work taking him successively to the departments of Aube, Ardennes and Seine-et-Oise (near Paris).

In 1920, with a handful of voluntary primary-school teachers, Cousinet tried out his method of free-group work. His basic assumption was simply that children are capable of organization, effort and perseverance when they are doing something they enjoy, like playing games, so why should they not display the same qualities when doing tasks they are able to choose and carry through on their own? Instead of teaching the children, the teacher prepares materials, objects, plants and minerals. It is not long before the children themselves bring along objects of interest to them. The teacher suggests to the children that they should freely make up small working groups; we shall go into the details a little later.

Among the activities that the children could select, Cousinet, like Tolstoy, proposed the writing of compositions on subjects of their own choosing. For eight years from 1920 to 1928, he published a review of children's writings, *L'oiseau bleu* [The Blue Bird], which was to earn him a bad reputation with the Ministry of Education, under whose authority he worked. Meanwhile, Cousinet was taking an active part in the congresses of the International League for New Education, which brought him into contact with educators from a wide range of countries. In France, he led the New Education movement which from 1921 to 1939 issued a very informative bulletin, published several books written by children and organized annual congresses attended by all educational reformists.

In 1944, towards the end of the Second World War, Cousinet, at 63, had come to the end of his career as an inspector but was embarking on a second career as a lecturer on education at the Sorbonne, where he remained until 1959. Together with F. Chatelain, he founded an association, called the École Nouvelle Française (New French School), opened the La Source experimental school and devoted himself to his writings, into which he poured the rich fruits of his experience. It was a period in which he enjoyed considerable international prestige.

In 1963 he founded, together with the present author, his fourth journal, *Éducation et développement*, and only stopped writing when he became blind shortly before his death in 1973.

Years of experimental work: free-group work method

Before becoming a teaching specialist, Roger Cousinet was interested in child psychology, especially social psychology. As early as 1907, in his first major article, he showed that social intercourse plays a decisive part in matching a child's perception with reality (as we generally perceive it) and hence in the development of thought.[1] In the following year, he wrote one of the first studies to be devoted to the fellowship of children which inevitably grows up in self-defence against the dictatorship of adults.[2] He continued his observations and research along these lines while working on his thesis, which was to be cut short by the First World War and Durkheim's death in 1917. While experimenting with group work among children, he continued to keep a constant watch over their reactions. By asking teachers to step down from the dais and adopt a different approach, he changed the atmosphere in the classroom and observed the effects of this on the children's behaviour. So it was that the method he developed constantly referred back to child psychology.

PSYCHOLOGICAL BASES

'The child is a scientifically active being', wrote Cousinet in 1931. He arrived at this precise conclusion by adding his own observations to those of other researchers, particularly Charlotte Bühler.[3] While they had no doubt meticulously observed children at play,

> it is now difficult to go on asserting that play is the child's natural activity. However remote it may be from work, it is closer to our work than to our play, and in it are to be found application, a love of difficulty and awareness of what is useful, along with joy. The child combines seriousness with gaiety, whereas for us these have become opposites. This is perhaps the most distinctive characteristic of a child's activity, on which all the rest depends. It is not specifically playing that he enjoys, but having fun at work, working for fun. This is what makes children so difficult to understand and so difficult to help through education, and yet so educable and so well prepared, when the time comes, for our form of work.

Meanwhile, there is something of the adult's propensity for play left in children:

> Encourage them to engage in the activity which is closest to their natural activity, allow them *to do something* exactly in the way they like, in other words let them live naturally, and you will see that there are times when they will stop this activity to go off and play. There is no doubt an extremely simple explanation for this: play is a regression, a return to easier occupations.[4]

When children are engaging in their natural activity, when they are making something, they will obviously end up discovering certain basic laws, those of physics, for example. They will discover the demands inherent in matter. A plasticine man is not made in the same way as a paper one, and a sand-castle is governed by different technical laws from a castle made of wood. From this and many other observations, Cousinet came to the conclusion that 'the child is a scientifically active being'.

Teaching, by its very nature, curbs a child's creative activity. The first contact with teaching is inhibiting, both physically, because it means sitting still, and mentally, because the child is not allowed to ask the teacher questions and communicate with others. Teaching prevents the child from learning. And Cousinet notes with implacable logic: 'Child psychology now leads not to the transformation, but to the disappearance of teaching.'[5]

The fact is that it is no longer a question of teaching (children) but of cultivating a living environment, just as a scientist in a laboratory prepares the solution in which an organism can live and grow. The issue is no longer one of educational science but of psychology or even biology.

The working tool is method and this must be passed on from the teacher to the pupil. No longer is it 'the ingenious technique discovered or used by the teacher for teaching. It is the tool which the child learns to use for working'.[6]

Roger Cousinet worked in primary schools, that is with children aged from 6 to 12 years. The acquisition of social maturity begins around 8 to 9 years of age, however. At that age – and this is the second basic psychological assumption – the child becomes aware of other children. 'This new awareness is reinforced by the new role played by language . . . whose true function apparently only emerges at this age, this being its social function, that of communication between individual ways of thinking.'[7]

The child gradually emerges from his global grasp of things. Thanks to language, which defines the successive stages in a process of evolution, analysis becomes possible.

> In fact, we always see these first attempts at analytical explanation accompanied by words and gestures. The child mimes the supposed activity and designates names to its various components. But this is where the words and gestures of other children come in. . . . Each one introduces his own words, different words (which sometimes designate the same thing, but that does not matter) and as each one now perceives the full significance of the language he hears, the words which designate explanations clash and conflict with each other. . . . This means taking a closer look, re-examining one's own views, verifying them or incorporating into them the explanations given by others.[8]

This is the origin of those interminable discussions that take place between friends standing around a car or a power drill. First of all, they have to discover the initial cause of the movement; then, once that has been found and accepted by everyone, 'it is traced all through the works, from one part to another, until its whole itinerary can be tracked down from the initial cause to the final movement – a wheel gliding along a rail or a propeller turning, or an impression being produced on the paper – whereupon everyone is satisfied.'[9]

Continuing his discussion, Cousinet shows that the effects of socialization are beneficial, not only intellectually but also as regards the personality, since children, who are always ready to put forward and impose their own interpretation, learn not to trust their own judgement. Children learn to propose rather than to impose. They learn to express themselves clearly, to listen to and understand others. They learn to live socially, in other words, to enhance their own thinking with the thinking of others.

A study of psychology thus leads to group education. Disregarding psychology means imposing on children a way of life unsuitable for them. If a child is deprived at some stage in development of the sustenance needed for that stage, he or she will either waste away or compensate for that repressed activity, or again try to live on the fringe of the adult world.

This is the root cause of the incidents that traditionally occur in a conventional type of class. The children stubbornly persist in this social development: they prompt or copy from one another and talk in class and the teacher spends almost as much time preventing the pupils from talking to each other as presenting the lesson. Despite appearances, factions are still formed with their ringleaders and scapegoats and, in an underhand manner, wage war on the teacher in all kinds of ways such as by creating a rumpus or getting up to various pranks. What is more, classes are built up on false values such as syllabuses (bearing no relationship to the children's interests), examinations and tests, with the teacher sitting in judgement, whereas group work will bring things back to normal.

METHOD

What has to be done is to give children back the freedom they enjoyed before entering school, so that when they begin school they will be confronted with the greatest possible number of activities to choose from.[10]

In addition to being prepared psychologically (making up his mind to refrain from giving 'lessons'), the teacher must gather together the material needed for each activity and know how to use it. When everything is ready, the teacher asks the children to divide into groups, 'as they are used to doing in their games and according to their natural inclinations, absolutely at will'.

The forming of groups may take time. The children gain invaluable experience in learning how to recognize those they can work with. There are no rules as to the number of children in each group (in practice, an average of six) or as to the exact membership of the groups (there may always be changes).

Each group has a part of the classroom to itself and this becomes, as it were, its own 'house', even if there is no actual physical barrier separating it from another group's 'house'. Along with their work, the groups soon set about collecting plants and animals, and it is a good idea to let them have their own pigeon-holes along the walls.

The teacher tells the children that they can choose from the various activities prepared for them and indicates the method of work. The method, a very simple one, will differ somewhat according to whether the activities concerned are creative or cognitive ones.

Into the 'creative activity' category, Cousinet puts art, acting and handicrafts.

In these areas, the children are given total freedom. The groups will often break up because writing a poem or painting a picture are matters of personal expression. The teacher should adopt an understanding and sympathetic attitude:

> He must show the same liking for this particular activity as for all the others; he must take pleasure in seeing his pupils creating something; even if the result is naïve and clumsy, he must not judge them. . . . He must encourage the children, talk to them about their work, ask them what they were setting out to do and whether they think they have expressed properly what they wanted to say.[11]

The 'cognitive activities' category comprises three kinds of intellectual work: science, history and geography. Here, the teacher tells the children some elementary guidelines which are 'the rules of the game'. These are as follows:

1. The work consists of looking at the objects and materials and writing out everyone's observations on the group's blackboard. The only practical requirement is for each group to have a blackboard so that its members can work together on the final version.
2. Once the work is finished, it is shown to the teacher who checks the spelling, proceeding as follows: (a) the teacher points out that there are some spelling mistakes; (b) if need be, he again draws attention to the mistakes, this time underlining the misspelt words; finally (c) the teacher corrects them, without giving any explanation unless asked for one.
3. The exercise is copied out into the group's exercise book, with illustrations if necessary, and shown to the teacher.
4. The written exercise is summarized on index cards.

Gradually the same headings recur on the index cards and the children learn how to prepare them in advance. The preparation of the cards leads naturally on to the idea of a classification system, and then to the drawing up of synoptic charts.

But let us go back to the various types of work.

'Science' work consists of an introduction to the study of animals, plants, meteorological phenomena (rainfall, temperature, wind), minerals, simple machines and a wide variety of objects. Before long, the groups bring along items of interest to themselves.

'History' work is focused on the history of things. Cousinet gave particularly careful thought to the teaching of history.[12] His theory was that political history, the history of governments and wars, is not only harmful but beyond the grasp of children, whereas they are familiar with the things they see around them and are likely to be interested in their history, that is to say, in studying the way in which they have evolved. Cousinet drew up a whole catalogue of the history of things, the main subject areas being types of dwelling, clothing, means of transport and communication, teaching, agriculture, industry, trade and so on. Naturally there is no order of preference. What is important is to start out from an observation of things as they are today. This means that if a group is interested in the history of types of dwelling, it will be advised to begin by looking at the various aspects of people's homes today. The children will then work from documents and pictures. During the preparatory phase, the teacher should take the trouble to collect a large number of postcards, pictures cut out of books, etc. The descriptive work is not confined to noting down observations, but involves producing a report from an observation of several documents. Learning history in this way is a wholly constructive exercise.

Here too, however, the method referred to previously is also used. The exercises are summarized on index cards which are then classified and, finally, synoptic charts are prepared describing, for instance, the history of costume through the ages with examples to illustrate the subject.

'Geography' work requires some observation material such as large-scale maps, railway, bus and flight timetables, but also street maps and local maps. Possible activities include describing imaginary journeys to a particular country, which may be of interest to one of the groups, using maps, timetables and other documentary material, or drawing a plan of the school or of an important building or making a map of the region.

The question of method calls for a number of comments.

Naturally, with the amount of latitude left to the groups there may be some interaction between the various activities just mentioned, especially between cognitive and artistic activities. For example, there may be drawings, paintings or models of various kinds to accompany the written texts. The history of costume may be illustrated by hand-made dolls' clothes or puppets.

It should be noted that no allowance is made for the teaching of grammar with this method. This is not an oversight. 'The teaching of grammar', writes Cousinet, 'is of no interest to the child at this particular age.'[13] If by some unlikely chance the children were to show an interest in it, they would proceed in the same way as for other types of work, that is, by observing and analysing the words, classifying them and producing their own grammar primer. Out of forty experimental classes, this happened in only one.

It should also be pointed out that, apart from free texts (free not only in their form and content, but also as regards their actual occurrence, unlike many classes in which the writing of 'free' texts is already provided for in the timetable!), there is no provision for composition as an educational exercise. 'French composition and the writing of essays are exercises for adolescents', writes Cousinet. On the other hand, language is constantly developed and practised, both orally and in writing, since the children discuss things in their groups and work to produce written texts that are required to be as clear, as precise and even as subtle as possible. In a conventional French composition class, children are asked to write on a subject, which means that they are required to say something when they may have nothing to say, whereas when they study and describe a scientific, historical or geographical fact, they learn to express their thoughts clearly and put them down on paper equally clearly. As to spelling, Cousinet considers that at the 'pre-grammatical age, a mistake is merely a slip', and systematic correction is all that is needed to create lasting reflexes.

Another subject that is not included in cognitive activity is arithmetic. No explicit provision is made for it, but it emerges and develops along with the requirements of manual work, housework and housekeeping.

In many cases, a spontaneous interest has arisen in this type of work, quite independently of any practical application. Realizing that they were not very adept or quick enough at doing the arithmetical operations required for other kinds of work, some children decided of their own accord to do multiplications or divisions and, for *several months*, would apply themselves to increasingly difficult calculations, up to 15 or 20 a day. There are little girls who, having developed an inclination for the relatively easy operations involved in buying dress material and cutting out and making clothes, have invented and solved increasingly complicated problems of this kind.[14]

THE RESULTS

This precise method, in which attention is paid to practical detail, was developed in urban and rural public schools where it was not possible to incur any extra expenditure. It was no idealistic dream, but a model devised and applied between 1920 and 1942 in some forty different classes. One example was a girls' primary school at Savigny-sur-Orge near Paris, where a teacher was able to keep her pupils and work with them along these lines for seven consecutive years.

Looking back over these many years of experimental work, Cousinet notes first of all that the children were never inactive and 'did not waste time having to listen to lessons which they never asked to be taught, and even less to sit listening to their classmates reciting lessons or answering questions'. On reading this unexpected observation, one can see through the wry humour and perceive the truth in it, a truth that adults would be little inclined to notice and admit. When we think of all the lectures to which pupils are subjected and which do not always capture their attention, all the time wasted in keeping order and in disciplinary action, not to mention the relatively or highly 'unprofitable' exercises like dictation, we have to admit that conventional, compulsory schooling is very often a waste of the children's time.

Looking at the results, Cousinet reports that each group produced an average of thirty written texts a month (i.e. more than one for each school day), not counting the drafting on the index cards and synoptic charts.

The results were also encouraging when it came to assessing the pupils' knowledge. When the method was introduced into the classes in which the pupils sat the *certificat d'études* examination (more than 50 per cent of pupils in state schools left school without obtaining this primary-school leaving certificate when it was in general use), the number of children who passed the examination was consistently greater, and their marks were always very high in science and French composition. The outcome with regard to composition is especially interesting when one considers Cousinet's particular attitude in this regard.

With no grammar teaching whatsoever, the children's spelling improved considerably. For example, in a *cours élémentaire* class (second or third year of primary education) the average rate of spelling mistakes dropped from 9.04 per cent in October to 3.8 per cent in the following July.[15]

While it is no doubt impossible to make any strict, year-by-year comparisons between children who have followed a syllabus and others who have not, broad comparisons show that those who have learnt by the group work method come out best: (a) analytical work (on flowers, insects, machines or geographical phenomena) fosters intellectual development; (b) grouping helps to develop maturity but also cultivates perseverance; 'laziness' ceases to exist; and (c) moral attitudes are also enhanced: in a society of equals, a person will quite naturally learn to respect the work of others, not to hinder them, and to be helpful.

The greatest benefit that children derive from this type of schooling, in addition to learning a great deal, is above all to learn how to learn. It is no doubt true that during long university courses, the best students have always ended up devising a method of work, but they are often the privileged few, and Cousinet wished to give to all children what had previously been reserved for that small band.

An overview of the New Education

At the beginning of the 1920s, when he began to experiment with his new methods, Inspector Cousinet was thought to be out of his mind. The prefect of the Aube department requested that he should be banned from teaching in the area, and the Ministry posted him to the Ardennes. He continued with his pioneering work, and that he was allowed to do so was no doubt because of the considerable prestige he had earned with the International League for New Education. His method was in fact better known abroad than in France. A prophet is not without honour, save in his own country.

After the Second World War, as a professor at the Sorbonne, he taught what he thought to be the truth, a truth borne out by experience. The climate was in fact a much more favourable one, and, with fashion on its side, the New Education had a large following.

Cousinet had no time for empty words, however. He condemned

> the fair-weather friends of the New Education who, while keeping to the spirit of traditional education, have seized on a number of new techniques they have gleaned here and there and used them to uphold that spirit and help them in their work, without actually changing it in any way. So, for instance, there are teachers who will divide their pupils up into several 'teams' and give each team a grammar or history exercise to do and will then claim, and at times even convince themselves, that they have introduced group work into their classes. Others, interspersing their lessons with incessant questions, believe they are using active methods. Yet another will insert a 'free' expression exercise into his timetable, on a set day and at a set time, while another will organize a school outing based on a strictly pre-planned list of observations making this imposed exercise sound more impressive and more like the new education by calling it environmental studies. And so it goes on.[16]

Cousinet did not merely condemn the caricatures of the New Education, but, in his teaching and in his works, explained what its real purpose was. Retracing the history of this international movement, going back to those he regarded as forerunners (Rousseau and then Tolstoy) and to those who founded it (Dewey, Stanley Hall and their successors) he singled out the common, and therefore essential, features to be found in the various organizations and systems.

The New Education was first and foremost a 'spirit' recognizing in the child a person in the process of self-development. Such development needs a favourable environment, the primary condition being an atmosphere of freedom. Like all living beings, the child progresses through interaction with the environment in which he lives. The educator's role here is to create for the child an environment which will be most consistent with his needs. Looking for a metaphor to express this idea, Cousinet rejected the conventional one of the gardener and opted for that of the health expert. Obviously, the role of the educator-health expert is totally different from that of the teacher, and the recruitment and training of such a person should be approached in a different way.

It is consequently the spirit of the thing that is important, the method being merely a working instrument, a tool the child learns to use in order to work. The teacher's role is to prepare the ground for the young learners' encounters with the methods that will suit them best, and, by observing the children ever more closely as time goes on, to discover or improve on the methods proposed to them.

Setting out resolutely in this direction, Cousinet, in his last book,[17] studied the psychology of learning. Where learning and conditioning differ radically is in knowing what goal is to be reached. People are interested only in what they know, however dim this awareness may be (centre of interest). A child learns to walk because he has seen others walk, and his own efforts will be triggered off by the clear goal in view and will be stimulated by emulation.

This is not the way it happens at school, however. With the exception of arithmetic, children are totally unfamiliar with all the subjects taught at school and cannot therefore have any desire to learn them. To add to this, the teacher-who-teaches is not a model to be emulated. What is needed, therefore, is to find situations that will trigger off a knowledge of the goal in view and hence arouse interest. For example Cousinet writes that 'an awareness of spelling comes when the writer shows others what he has written'. From then on, especially if written communication is practised frequently, learning and research are set in motion. For instance, Cousinet continues, in group work 'I have in mind the countless discussions about spelling that I have witnessed, with recourse to the dictionary and finally, when necessary, having the matter settled by the teacher. Discussions of this kind are exercises in themselves.'[18] Emulation is stimulated by the teacher saying: 'Let us try and find out', and getting the children to look with him/her in the dictionary and grammar book.

It is no doubt a relatively easy matter to stimulate the acquisition of functional skills like reading and writing, for the child can see their applications. The purpose of school, however, is also to transmit abstract knowledge in a number of subject areas (physics, chemistry, history, etc.). The only solution is to transform this abstract knowledge into practical skills, and this is what has been successfully achieved with the free-group work method which presents children with objects and materials as working tools. Cousinet is very clear about the way in which this transfer is effected:

> The merit of this historic learning method by no means lies in gaining possession of *knowledge* – as in the conventional school sense of the word 'learning'. It lies in the work done by the pupil in examining, comparing, classifying and compiling a quantity of material which is placed at his disposal or found by the pupil himself so that he will, in the end, be *building*, and not *acquiring*.[19]

This is strictly true, but meanwhile, what is more, the pupils will be consolidating the knowledge acquired far better than if they had ingurgitated a set syllabus.

Cousinet's message today

Cousinet was right in saying that the New Education had its 'fair-weather friends' in the post-war years. Nevertheless, fair-weather friends do not stay the course. In a country like France, the New Education still has its adepts among some militant educators, but they are necessarily in the minority.

To put it plainly, the New Education movement has not succeeded in persuading the education authorities of the need for a change in teaching methods. Anyone unfamiliar with customary practice in the education world can only think that this failure signifies that the new methods are unsuitable. If they had turned out to be effective, they would have been adopted. This, in fact, is the argument put forward by many educators in developing countries. In fact, it is not as simple as that. In my view, there are three reasons for the 'failure' of the New Education:

Teachers, by definition, are recruited from those who were once 'bright pupils', in other words those who did well in the traditional system. Psychologically, it is very difficult for them not to reproduce the conventional model.

Although they do not always admit it, parents and teachers are afraid of the 'freedom' of choice and pace left to children with the New Education methods. Allowing personalities to develop in an original way goes against the human and professional ideal that adults cannot help projecting on to the children, while modern nations, even democratic ones, expect the school to help produce citizens who will conform to a standard model.

The university model impinges more than ever on the education provided in schools. Primary-school teachers mimic (albeit unwittingly) university professors transmitting highly specialized knowledge. This feeling of belonging to the same institution, possessing some profound unity,[20] is more solidly entrenched than ever today, as primary schools prepare a larger number of pupils for a long academic career than schools did in the past.

The wealthiest nations have, in fact, lengthened the period of compulsory schooling. Although there are advantages in this, it also has some very serious consequences, since a large proportion of children and adolescents (up to 30 per cent) have to face the experience of failure at school.

In dealing with this situation, educational research has focused mainly on instructional techniques in the subjects taught. This narrow approach is based on the assumption that the system can be improved indefinitely. There may be some truth in this. However much you improve a car, you will never turn it into an aeroplane. It is a different system altogether. This is precisely what Cousinet was saying when he stated that 'education can no longer be an act of teaching', but is a different system. This message, thought by some to be paradoxical, should be heeded by us today.

Notes

1. Roger Cousinet, 'Le rôle de l'analogie dans la perception enfantine', *Revue philosophique* (Paris), 1907.
2. Roger Cousinet, 'La solidarité enfantine', *Revue philosophique* (Paris), 1908.
3. Charlotte Bühler, *Kindheit und Jugend*, Leipzig, 1930. The question of the child's activity was the main topic discussed at the New Education Congress held in Paris at the end of March 1931, with a statement by Elsa Kohler, who worked with Charlotte Bühler, on 'The Activity of the New Child' and one by Roger Cousinet on 'Play and Work'.
4. Roger Cousinet, 'Le jeu et le travail', *La nouvelle éducation* (Paris), July 1931.
5. Roger Cousinet, *Une méthode de travail libre par groupes*, 3rd ed., p. 24, Paris, Éditions du Cerf, 1967.
6. Ibid., p. 27.
7. Ibid., p. 37.
8. Ibid., pp 27–38.
9. Ibid., p. 21. It may be noted that Jean Piaget, on the subject of group working methods, put forward some very similar comments in his 'Réflexions psychologiques': see International Bureau of Education, *Le travail par équipes à l'école*, Geneva, 1935 (texts by Jakiel, Piaget, Petersen and Cousinet).
10. This justifies the title of the study by Giustino Broccolini, *Roger Cousinet, pedagogista della libertà*, Rome, Armando Armando, 1968.
11. Cousinet, *Une méthode . . .*, op. cit., p. 123.
12. Between 1920 and 1922, Cousinet published a series of studies on the history of particular objects in the educational review *L'école et la vie*. He adopted a similar position at the International Congress on Moral Education (Geneva, 1922): 'The history of objects is necessarily international and, in that alone, it teaches solidarity just as political history teaches nationalism.' His statement was published in *L'esprit international et l'enseignement de l'histoire*, Neuchâtel, Delachaux & Niestlé, 1922. In 1950, he came back to these various themes in *L'enseignement de l'histoire et l'éducation nouvelle.*
13. Cousinet, *Une méthode . . .*, op. cit., p. 76.
14. Ibid., p. 68.
15. Ibid., p. 90.
16. Roger Cousinet, *L'éducation nouvelle*, p. 86, Paris/Neuchâtel, Delachaux & Niestlé, 1950.
17. Roger Cousinet, *Pédagogie de l'apprentissage*, Paris, Presses Universitaires de France, 1959.
18. Ibid., p. 45.
19. Ibid., p. 100.
20. This unity is conceivable, even if the age and status of the learners calls for the use of different teaching systems. On this notion of a teaching system, I refer the reader to my study: Louis Raillon, *L'enseignement ou la contre-éducation*, Paris, Presses Universitaires de France, 1984.

Selected works by Roger Cousinet

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La culture intellectuelle. Paris, Presses d'Île de France, 1954.
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Several books by Roger Cousinet have been translated into Spanish (Buenos Aires, Losada Publications) and into Italian (Florence, Nuova Italia).

Selected works on Roger Cousinet

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Coen, R. *Cousinet e la scuola come tirocinio di vita*. Florence, La Nuova Italia, 1952.
Ferraro, D. *Cousinet e l'educazione nuova*. Bologna, Leonardi, 1972.
Raillon, L. *Roger Cousinet: une pédagogie de la liberté*. Paris, Armand Colin, 1991.

[illegible] *Revue philosophique* (Paris), 1908.

[illegible] the International [illegible] Congress held in Paris [illegible] who worked with Claparède [illegible]

[illegible]

8. Ibid., [illegible]

9. [illegible] on the subject of group working [illegible] *Réflexions psychologiques* [illegible] *le travail par groupes à l'école*, Geneva, [illegible]

10. [illegible] *Roger Cousinet, pedagogista della libertà*, Rome, Armando Armando, 1968.

11. [illegible]

12. [illegible] published a series of studies on the history of [illegible] He adopted a similar position at the International Congress on Moral Education (Geneva, 1922): "The history of [illegible] it teaches solidarity just as [illegible]" This statement was published in *Congrès international d'éducation morale* [illegible] Delachaux & Niestlé, 1922. In 1950, he came back to [illegible] *l'enseignement de l'histoire et l'éducation* [illegible]

13. Cousinet, *Une méthode . . .*, op. cit., p. 78.

14. Ibid., p. 88.

15. Ibid., p. 90.

16. Roger Cousinet, *L'éducation nouvelle*, p. 88, Paris-Neuchâtel, Delachaux & Niestlé, 1950.

17. Roger Cousinet, *Pédagogie de l'apprentissage*, Paris, Presses Universitaires de France, 1959.

18. Ibid., p. 45.

19. Ibid., p. 100.

20. This latter is conceivable, even if the age and status of the learners calls for the use of different teaching systems. On this notion of a teaching system, I refer the reader to my study [illegible] *L'enseignement ou la contre-éducation*, Paris, Presses Universitaires de France, 1979.

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[illegible] Neuchâtel-Paris, Delachaux & Niestlé, 1952.

JAN WŁADYSŁAW DAWID

(1859–1914)

Czesław Kupisiewicz

> All his life, Jan Władysław Dawid was closely associated with the teaching profession: he was born into a family of teachers, was himself a teacher for many years, and educators made use of his work in science and journalism. Shortly before the end of his industrious life, he wrote his famous discourse *The Souls of Teachers*, which attempted to provide a synthesis of their virtues. Although, during his politically active years, he strayed somewhat from educational problems, he still remained an educator in the broad sense of the term: he taught all Polish society the principles of social justice and the laws of revolution looking towards a better future for the nation.[1]

To this brief description of Dawid's personality, by W. Okoń, should be added many other facets. Dawid was an excellent teacher, a clear-sighted pioneer, the successful author of several books and scientific articles, a talented journalist, and above all, an unremitting patriot, utterly devoted to the cause of Polish freedom, a country divided during his lifetime among three enemy nations.

Dawid and his times

Dawid was born on 26 June 1859 in Lublin. His family was intellectually distinguished and passionately devoted to the nation's traditions. Dawid completed his secondary schooling in 1877 and in the same year began to study law at the University of Warsaw, which, according to the Tsar and his government, was intended to 'Russify' Polish youth. After obtaining his law degree, he turned to natural sciences at Warsaw for a year, and then was present at Leipzig and Halle from 1882 to 1884. There, he studied psychology and the educational sciences, which continued to be strong interests for him to the end of his life. In Germany, he was strongly influenced by W. Wundt who, in 1879, had established an experimental psychology laboratory in Leipzig, the first in history. The attitude to work and the scientific experiments conducted there made a profound impression on Dawid who believed that these experiments were fundamental to the blossoming and development of psychology, an idea that was only reinforced after he met H. Ebbinghaus who was conducting research on memory.

Dawid was also interested in the science of education and followed the discussions of the education movement developing rapidly during his stay in Germany, the prime movers of which were W. Dilthey, A. Lichtwark, W. T. Preyer and W. Rein, amongst others. This movement was attempting to rethink traditional schooling, whose curricular methods and organization were considered to be ossified. According to critics, this ossification made it impossible for children to flourish and made the school an institution that was responsible for its pupils' neuroses. Such a view drew its authority from the psychological research of the period, as for example, W. T. Preyer's work, *Die Seele dęs Kindes* [The Child's Soul], 1882.

On returning to Warsaw, Dawid began his scientific, journalistic and teaching career, and in 1887 published his first work: *Programme of Psycho-Educational Observations of Children from Birth to the Age of 20*. This described the stages of children's and adolescents' mental and physiological development and not only, as Preyer had done, the infant stage. About this time, Dawid began to publish his scientific essays in Polish journals, addressing several problems of developmental psychology and education, the history of educational thinking, educational theory, teaching, an understanding of nature, and so on. At the same time, he devoted much of his energy to commenting on social and political affairs, particularly by describing the difficult socio-political conditions of the Poles under Russian occupation. Finally, it was during this period that his career as a teacher in private schools began.

After the failure of the Polish January Insurrection (in the autumn of 1864), the Russian occupiers took the most severe reprisals against the Polish people and their education system. Russification was aimed in particular at secondary education, where the Polish language was completely banned, and the education system was made subject to military discipline. Polish society reacted by starting to organize a movement to preserve national education, the main features of which were education in the home and the development of private schools. As a private school teacher himself, Dawid took an active part in this movement where he met other Polish personalities: writers such as B. Prus, A. Dygasiński and A. Świętochowski, and scientists such as Z. Heryng, P. Chmielowski and T. Korzon.

In 1886 and 1887 Dawid concentrated his activity on the translation of German, French, Russian and English texts. He also began to write his work *Object Lessons*, which would become the major work of his life. In 1890, despite his youth, Dawid became editor-in-chief of the *Educational Review*, an excellent weekly for teachers. He published his own articles there as well as extracts from his *Object Lessons*, publication of which was completed in 1891.

His marriage to Jadwiga Szczawińska, in 1893, brought a profound change to his life. His wife, like himself, was a journalist, and was also devoted to the struggle for national independence. They were both militants in the political movement that fought for the liberation of Poland and for a reconstruction of social and political relations along progressive lines. The Dawids' political activity led to reprisals by the police of the occupying power. Dawid thus had to give up his position at the *Educational Review* in 1897 and the pace of his scientific work slowed down markedly. That situation continued until 1905, the year of the revolution. One of his colleagues, the well-known sociologist L. Kryzwicki, later explained the reasons for what he considered to be a sacrifice:

> Dawid, like many other of his contemporaries, followed the trends of the time: soloists and composers, famous and talented, forsook their Muse, because it would have been shameful, they believed, to refine the beauty of their sounds when others were dying of hunger; poets neglected their talent and threw all their energies into writing books that were accessible to the public; thinkers . . . were deported to Siberia or sentenced to hard labour for having published booklets or written articles in banned magazines. If Dawid had devoted himself entirely to teaching, he would have felt guilty of forgetting those who were starving and miserable in the interests of his own pleasure. He therefore fought for the people's right to liberty and humanity, but basically he remained a teacher, for if the conditions shaping his life had been different he would never have been diverted from his vocation.[2]

In 1900, Dawid accepted the position of editor-in-chief of *Głos* [The Voice], a progressive socio-political weekly which was not associated with any political party. By that time, his opinions had become radical. In several articles he maintained that only a revolution could bring complete autonomy to Poland: 'We shall win everything that can be won, not by docility and moderation, but by the strength of Action, Action by all the revolutionary elements united.'[3]

The revolution of 1905 was defeated by the Tsarist regime, the weekly publication *Głos* was suppressed and reprisals against Dawid and his wife were intensified just as their financial situation worsened. Dawid's health also became worse, reflecting his despair at the failure of the revolution. In February 1910 his wife, worn down by these events, took her own life. This was a terrible blow to Dawid, bringing radical changes both to his interests and his scientific work. At that time he confided: 'All I have left is my anguish which is a mortal illness. But death approaches slowly, so slowly. . . .'[4]

Fleeing from the Tsarist police, Dawid took refuge in Kraków. He lived there alone, earning his living by giving occasional lectures. He wrote as intensively as ever, as if he were seeking oblivion through his unremitting work. At this time, in addition to publishing numerous articles, he wrote his discourse *The Souls of Teachers* (1912) which is still read to this day. In his *Object Lessons* Dawid had appeared as an empiricist, basing his educational theory on the meticulous analysis and correlation of concrete facts. In his pamphlet *The Souls of Teachers*, facts are no longer so important. In their place he puts educational ideals, particularly 'love of the human spirit', which for him was the most important characteristic of a teacher. This great change, reflecting his work on Bergson's philosophy and on the psychology of religion, can be explained, according to some of his biographers, as a consequence of his wife's premature death and the subsequent events in his life.[5]

Although the Poles in Kraków, which was under Austrian occupation, enjoyed a measure of autonomy, Dawid did not feel comfortable there. Thus in 1913, he took advantage of an amnesty and returned to Warsaw. He resumed his teaching activities, continuing his theoretical work and even planning new experiments. His premature death on 9 February 1914 put an end to his projects. He would not be there to greet Polish independence, proclaimed in 1918.

A pioneer

I have referred to the great diversity of Dawid's interests and scientific work: he was interested in philosophy, sociology, the history of civilization, art, politics and what today is called politology; for a time he was fascinated by ethics and economics, the history of education and physics, particularly magnetism. But the greater part of his energy and labour was devoted to psychology and the educational sciences, which he believed should be based on empirically verified facts.

This approach is evident in his very first work: *The Moral Crisis: a Psychological and Social Study* (1886). Claiming that teachers generally are not trained in psychology, which means that they only know how to 'stuff their students' heads with knowledge', he devotes part of the book to an analysis of suggestion and imitation which, in his opinion, play an important role in instruction and education.

In the following year he published his *Programme of Psycho-Educational Observations of Children from Birth to the Age of 20*, which is in two parts. In the first part, which is methodological, Dawid stresses the importance – for the theory and practice of teaching – of experiments based on observation. The second part consists of a questionnaire dealing with the emergence and development of mental and physiological processes in children. Five hundred questions are divided among eleven chapters: family, education and social background; the child's psychological development and state of health; the senses; concentration and intelligence; the richness of experiences; imagination; reasoning; language; feelings; memory and the association of ideas; and physical skill.

Dawid's questionnaire made a decisive contribution to the subsequent development of experiments in educational psychology on children and adolescents in Poland; it was also used widely in the in-service training of teachers who, according to Dawid, are in 'the most human of all professions'.[6]

The best known of Dawid's experiments dealt with children's mental resources. Their principles, the manner in which the experiments were carried out and their results were presented and analysed in his book entitled *Children's Intellectual Potential: an Essay in Experimental Psychology* (1886) which enjoyed great success in the educational world at the end of the nineteenth century. The starting-point was to interview 520 children aged between 6 and 12 years. The aim was to define the quantity and quality of information (Dawid would have said 'images') that the interviewed children had about fauna, flora, the earth, man and his work, the countryside and the town. The children also had to answer 136 questions relating to their 'direct experience'. The following questions are samples:

Have you ever seen: (1) a flock of sheep in a field? (2) a hen with chicks? (11) a live squirrel? (40) bunches of grapes on a vine? (70) the sunrise? (136) a fire?
Have you ever been: (108) in a water-mill? (111) in a factory?
Have you travelled: (115) on a train? (117) on a ship?

Analysis of the answers showed that most of the information and experiences related to nature, far fewer to geography, and very few to man and his work. Thus, only 1.4 per cent of the children interviewed had never seen 'a starry sky', and 2.9 per cent 'lilacs'; by comparison, 54 per cent had never been in a city, and 32.3 per cent had never been to the countryside.

Drawing general conclusions from the results of the experiments, Dawid observed that sex, nationality, and race of Polish children of all religions – including Catholics and Jews – had no influence on 'the level of the children's knowledge', that is, on the quantity and quality of their information. The range of their knowledge depended almost entirely on two factors: the place where the child lived (urban or rural); and the type of school attended (public or private).

These observations are close to the ideas put forward by psychologists and educationists of that period such as K. Lange, B. Harmann, G. Stanley Hall, N. Greenwood and others, particularly the observation that children begin quite early to manipulate several abstract ideas defining the properties of objects such as their shape, numbers and colours. However, Dawid analysed differently from his foreign colleagues the influence of innate predispositions on the development of the child's mind. He did not share the opinion of the radicals who believed that innate forces played an exclusive role in these predispositions, and demonstrated that the influence of the environment in which the child lives and grows is also of equally great importance. Furthermore, Dawid's experiments contributed to the rejection of the widely held opinion of the late nineteenth and early twentieth centuries to the effect that the intellectual level of girls was inferior to that of boys.

In his research, Dawid attached great importance to elementary education. His *Object Lessons*, devoted to this level of education, is still largely relevant and is used today as a reference work, which does not happen very often in educational literature!

Object Lessons instituted the method of teaching through seeing and hearing, or, in today's terms, audiovisual teaching. The work provided the teacher with effective aid in teaching students about the objects and the phenomena of their biological, social and cultural environment, and also in refining their senses, intelligence and imagination. This method, it was believed, would endow children with the knowledge required by the century 'of steam and electricity', and would facilitate the continuation of their studies at the succeeding levels of education.

In *Object Lessons*, Dawid presents the genesis and development of audiovisual instruction, describing in detail its form and content. In particular, he analyses the theoretical bases of his method. In this, he is critical of the 'nature study lesson' concepts propounded by Pestalozzi and Herbart, which were very popular at the end of the nineteenth century. The first one, based on the 'number–form–word' formula, was in Dawid's view too schematic; the second stifled teaching in the restrictive embrace of four (in Herbart's case) or five (in the case of Herbart's followers) excessively formal levels.[7]

Dawid mentioned Comenius' *The Great Didactic* as a source of inspiration for his *Object Lessons*. But while the great Czech thinker had only sketched the outlines of these lessons, Dawid, making use of an abundant literature on the subject (including the works of Rabelais, Pestalozzi, Rousseau, Fröbel, as well as contemporary authors such as Dickhoff, Gréard, Salomon and others), developed a coherent theory of elementary-level audiovisual instruction. It is no exaggeration to say that this theory, or at least its foundations, contributed to the later development of the methodology of science teaching. It also strongly stressed the need to overcome the contradictions between the concept of formal and encyclopedic instruction and practical teaching, questions that were widely discussed at the time. Educational activity consists, he wrote, 'first of all, in stimulating capacities and an interest in the indirect knowledge of concrete things; secondly, in the material preparation of students for such knowledge'.[8]

Unlike some contemporary theorists, Dawid was also convinced that the new method – the object lessons – should not be considered as serving only the elementary education of the mind, but also as serving to train children's feelings, will and character. This is indeed a very modern view.

The concept of 'object lessons' played an important role in the development of Polish education. It was a milestone and a source of inspiration for empirical experiments on the teaching process, which is reflected in the works of B. Nawroczyński (*The Student and the Class*, 1923), W. Okoń (*The Process of Teaching*, 1954) or of B. Suchodolski (*A Model of an Educated Pole*, 1980). Dawid's concept was a veritable treasure-house of methodological knowledge for Polish teachers and for trainee teachers. It was also an antidote to the weaknesses and excesses of teaching and instruction, such as verbalism and formalism, which were very widespread in Polish education at the beginning of the twentieth century, and the starting-point for the reconstruction offered by 'object lessons' – this time in an independent Poland – following, among other things, the progressive approach of 'learning by doing'.

Dawid's last work, *The Souls of Teachers* (1912), created a great stir. Unlike his other works, which were largely based on empirical studies, this one contained axiological and ethical reflections, as the title itself indicates. Dawid considered that 'the love of human souls is the characteristic trait of a good teacher'. He believed that the teacher should not be content

> simply to give a lecture, but should also fulfil other functions, those of educator, protector, counsellor, partner, initiator of many cognitive activities by the students, referee, and finally judge. . . . This requires, of course, a sense of responsibility, sensitivity to human suffering, continuous reorientation, an interest in society, a considerable intellectual and moral culture, tolerance, objectivity in judging others, and most of all in judging oneself.[9]

The principal aim of Dawid's organizational activities was the establishment of an institution to train such teachers. He almost succeeded in Kraków but when the First World War broke out in 1914 he had to give up that project too, of which nothing remained except the organization of seminars for teachers later on in independent Poland. One work also remains from this effort, *Intelligence, Will and Aptitude for Work* (1911) in which Dawid described his empirical psychological and educational experiments and drew practical consequences from them for the training of teachers. Its principal thesis is that 'to know, to want and to do are the three sources that animate human life'. To know is to be intelligent, to want is to demonstrate an aim, to do is to work and to transform plans into reality. These three sources are closely linked and act upon each other so that neither can function effectively if it is separated from the others. I believe that the educational consequences of this observation need no further comment.

Of these three sources, intelligence was the one to which Dawid devoted the most attention. In his view, intelligence is not inherited, but is a faculty that can grow and be cultivated, and which governs the conditions indispensable to human development. These conditions are the senses, attention, memory, thought, imagination, and their respective activities. They do not constitute, by themselves, intelligence, though they are like 'a fertile soil from which it draws the vital sap and where it grows'. The essence of intelligence 'is reflection or the gift of creating abstract ideas, reaching conclusions, explaining and verifying'. In a very modern way, Dawid defined thought as 'the tendency to uncover relationships between things, phenomena and processes; as the desire to study something that is inaccessible to the senses; as that which does not exist in memory, and that our mind adds to reality.'[10] Viewed in this way, thought consists of the internalized fulfilment of our projects, while action consists of bringing them to life and concrete existence.

In Dawid's view, intelligence can be measured. However, he was not convinced that it was possible to do it effectively and adequately using Binet's 'measurement scale', which was very popular at the time. Dawid believed that this scale subordinated intelligence to the quantity of knowledge that the individual possessed and required the subject who underwent the test to act in artificial conditions, often very remote from those of real life. To avoid this disadvantage, Dawid developed a 'test of reasons and consequences' which he entitled: 'What Happened and Why?' He explained it in these terms:

> I was looking for a method which would be closer to the circumstances in which most people apply their intelligence in life, in relation to concrete objects and phenomena, where observation and imagination are combined; a method independent, as far as possible, of experiences and knowledge, of the type and level of education and literary culture, and even of the ability of self-expression; lastly, a method which could be used independently of the level of development and intellectual potential.[11]

The aim of Dawid's test was to arrange some pictures in relation to each other according to the 'cause-effect' criterion, so as to demonstrate the different phases of events of varying complexity.

Dawid's test was very successful in Poland among teachers, particularly those who wanted to conduct empirical studies of teaching. With these people in mind, Dawid published an article, 'On the Spirit of Experimental Education' (1912), in which he advised them 'to study . . . concrete educational processes, the real mental life of the students, and the factors that influence this life. It is then and only on that basis that educational activities can be undertaken and can lead to good results.' Later, he added: 'Teaching is not learned from books, not even the best ones. It is based on strict laws that must be known and understood in full awareness of their consequences. For that reason, it is necessary to observe and analyse real educational processes and phenomena, while still not forgetting these laws.'[12]

As already mentioned, Dawid was a fierce adversary of everything in instruction that had the slightest relationship with formalism. He thus always stressed very strongly that future teachers should learn to analyse profoundly and minutely every educational situation, thereby overcoming the possible domination of any single educational theory or concept. I believe that this is still appropriate today.

In addition to the publications cited so far, Dawid wrote several other works, including *Psychological Essays* (1880), *A Course of Science and Psychology* (1886, as a supplement to the periodical *Educational Review*), *Brain and Soul* (1908), and *On Intuition in Mysticism, Philosophy and Art* (1913). In all his publications one finds his erudition, his great attention to the needs of educational practice, the continuing criticism of what he called 'the defunct scholastic past', and a deep conviction as to the importance of the mission that teachers must fulfil.

Translator and editor

Dawid's work as a translator is impressive. It includes several books translated from French, Russian, German and English – languages that Dawid spoke fluently – as well as many speeches and articles. His first translations were about magnetism, hypnosis and spiritualism, which were subjects of keen interest in the West at the end of the nineteenth century.[13]

Later, he translated works dealing with educational and psychological questions, particularly the foundations of education and the modern psychology of women.[14] Finally, there were translations of texts on ethics, philosophy and economics.[15] His translation of Paulsen's book on Kant stimulated Dawid's interest in philosophy while he was living in Kraków and was still affected by his wife's sudden and tragic death. It was then that Dawid's philosophical and religious thinking turned towards mysticism. It was then, too, that he was working on Bergson's philosophy and the psychology of religion.[16] Some of Dawid's biographers believe that he was seeking in this way to 'go beyond the excessively mechanistic limits of science and to deepen his own research in mysticism'.[17]

Dawid's publishing activities began in January 1890 when he took the position of editor-in-chief of the *Educational Review*. This periodical published the contributions of many famous Polish writers and scholars, including S. Dickstein, A. Dygasiński, T. Korzon, L. Krzywicki, I. Moszczenska, W. Osterloff and others. The *Educational Review* also maintained very close relations with its readers, most of whom were teachers trying to improve their professional skills, using the sections in the review entitled 'Educational Guide', 'Kindergarten' or 'Systematic Course of Elementary Education'. The review also published supplements in book form such as *Object Lessons* by Dawid himself, *Outline of Geography* by W. Nalkowski, *Algebra for Beginners* by J. Todhunter, translated from English and other languages.

The 'Educational Guide' section was a great success with the readers. It addressed such subjects as mentally handicapped children, how to prepare children for school, how to learn to teach, how to tackle stuttering, and many others. Dawid was often the author of these articles thereby showing proof of his talent, of his willingness to popularize these questions and of his concern for society's needs.

In 1893, Dawid published the results of his investigation on the theme of 'what had the greatest influence on my life', which was a huge success not only among ordinary readers but also among psychologists. The study made it possible to discover what were the values most prized by the Polish intelligentsia of the period, namely patriotism and liberty, and the importance of science and culture.

In 1897, as noted above, Dawid left the editorship of the *Educational Review* on being accused of having radicalized its content, thereby 'harming the public interest'. Three years later, Dawid resumed his editorial activities, this time as editor-in-chief of the weekly *Głos* [The Voice]. This periodical published authors of very diverse political, social and artistic opinions, in accordance with the views of Dawid who believed that the principal criterion in choosing articles should be the independence of the thoughts expressed, their modernity and critical weight, not their conformity. At first, Dawid published articles on cultural subjects, such as 'Criticism and Creation' and 'The Importance and Goal of Culture'. During the years preceding the revolution of 1905, the articles were increasingly focused on social and political problems. Later on, Dawid explained what motivated him: 'Many people held my political, social and journalistic activity against me, saying that it took me away from my scientific work. . . . But I could not do otherwise. I was always sensitive to any false note, to any injustice, to any evil, and it was this sensitivity that drove me to action.'[18]

After the failure of the revolution of 1905, *Głos* ceased publication, but Dawid soon returned to his editorial vocation and, starting in 1906, he wrote for the *Social Review* where, over a two-year period, he published more than thirty articles on socio-political problems. This collaboration ended when the Tsarist authorities suppressed the *Social Review*. Thus ended an important stage of Dawid's life during which his socio-political and scientific work were carried on at the same time as his activity as a teacher.

The teacher

Dawid was primarily a theorist. His actual teaching work was sporadic, such as when he taught in private schools or gave lectures. Thanks to his wife, he took an interest in the 'mobile' university, the clandestine school of higher education for women which, despite harassment from the police, operated continuously from 1885 to 1906 when it was legalized under the name of the Society for Science Courses. Nationally renowned scholars taught in this mobile university – so called because it had no fixed headquarters – including P. Chmielowski and I. Chrzanowski (Polish philology), W. Smoleński (history), A. Mahrburg (education and psychology), L. Krzywicki (sociology), M. Hertz (mathematics), O. Bujwid (natural sciences), and many others. Thanks to this collaboration, the university enjoyed great social prestige and, although it was reserved for women, many men wanted to study there too.

As a teacher, Dawid was not highly appreciated by his students. He seemed unapproachable, taciturn and, according to one of them, he was 'as if indifferent to everyday problems'. Nor was he a good speaker, even though his lectures, according to the same student, 'were profound and very full of knowledge, and the precision with which his thoughts were formulated clearly showed the importance of the problems he addressed'.[19]

Dawid's influence on the development of educational psychology in Poland

When Dawid began his scientific activity, there were two competing educational trends in Poland: positivism and naturalism. Believers in positivism were of the opinion that education consisted of 'adapting young people to life under the conditions affecting them, and above all teaching them how to get their food, clothing and a roof over their heads' [20] It should be remembered that 'the conditions affecting them' in Poland were then dictated by the occupying power and that socio-economic relationships were those of the pre-capitalist era. The goal of education formulated in this way did not take into consideration 'the preparation of young people for work and the exchange of goods', objectives which were nevertheless important for the positivist approach to education throughout Western Europe.[21] For their part, the representatives of the naturalist tendency spoke of the determining influence of genetic factors on the process and outcomes of education. They pinned all their hopes on biological and psychological experiments, whose effects, so they believed, 'would at last shake the old foundations of education and mark out a new and more efficient direction for it'.[22]

Dawid, in his concept of the role of the school and education, had gone beyond both positivist utilitarianism and naturalism. He believed that education should be based on the one hand on the results of psychological experiments – of which, it should be remembered, he was both a follower and a practitioner – and on the other hand on practice, taking into account the mental and physiological interests and capacities of children and adolescents. It may then rightly be believed that in demonstrating the narrowness of currently popular educational thinking 'Dawid was ahead of his times and that, in Polish education, he rose to rank as one of the most modern representatives of this discipline'.[23]

Dawid was also responsible for influencing the creation and popularization with teachers of a new pattern of schooling. Rejecting the traditional pattern, based on the encyclopedic approach and the formalism of the followers of Herbart, which, furthermore, was distorted in Poland by the policy of 'de-Polonization' and of loyalty towards the occupying power, Dawid advocated the model of a school as 'humanitarian, based on the training of character and inculcating in the students a humanitarian view of the world'.[24]

In his model of schooling, Dawid refused to overload the students. He argued for harmony between theory and practice and for a necessary concentration and integration of instruction. He also recommended that children should be stimulated with the desire to know about things by giving them many chances to do so. He wanted schools to teach students to 'know, want and do'.[25] As we have seen, he was also a supporter of 'object lessons' in which he saw an effective weapon in the struggle against verbalism. In particular, he demanded that teachers should understand their students as much as possible, thanks to educational psychology experiments, among other things, and that work with them should be based on the idea of 'partnership', mutual esteem and trust.

This pattern of schooling was way ahead of its time. What Dawid was arguing about in the overloading of school curricula and the integration, in the students' minds, of the content – still artificially divided between different subjects – has yet to be realized even today. The same is true of the postulate that the school should concentrate its efforts solely on intellectual education (knowing) while Dawid wanted it also to educate sensitivity and the will (doing and wanting). In this context, Dawid's model of 'humanitarian' schooling – today we would call it, as von Hentig does, 'humane' (*eine humane Schule*)[26] – still attracts the interest of reformers in Polish education. For example, its influence is quite visible in the *Report of the Committee of Experts on National Education on the Situation and Directions for the Reconstruction of the Polish Education System* (1989).[27]

Dawid was aware that putting his model into practice would depend primarily on the teachers. The content and methods of their training, their social and patriotic activities, their attitudes and personalities were at the very centre of his preoccupations.

During the first period of his scientific activity, the principal factor of the work of a teacher was, for Dawid, knowledge of psychological and educational laws and putting this knowledge into practice. As we have seen, Dawid focused all his energy as a researcher on the analysis of these laws and on the principal problems of the theory of teaching (mainly in *Object Lessons*) and the theory of education (mainly in *Intelligence, Will and Aptitude for Work*).

After 1910, he stressed awareness of spiritual community and solidarity with others. In his treatise *The Souls of Teachers*, he called this sentiment 'love of human souls'. This commitment, he believed, is a source of professional enthusiasm, self-confidence and success in schoolwork:

> If one had to choose between a teacher who has professional knowledge, and is familiar with psychology and the methods and techniques of education, but who does not have this commitment, and a teacher who, despite modest knowledge and a lack of training, is animated by a lively and active sense of the spiritual community and loves and protects the souls of his students, the second one must be chosen.[28]

But this alternative was purely formal for him because he wanted teachers to be aware of the importance of their profession and of the impact of the results of their work, and wanted them always to seek to increase their knowledge. These requirements are still topical today.

Dawid also influenced the methodology of experimentation in educational psychology in Poland. He was one of the principal initiators and popularizers of empirical studies on children's mental powers, their imaginary and real universes, their intelligence and their ways of thinking. The idea that he explored with his collaborators of simultaneous development of the mind, will and aptitudes of students is also of interest today. Of topical interest, too, is his concept of 'object lessons' which he set against the then current practice of 'verbal and textual knowledge which arouses reflection in children too early, to the detriment of their aptitudes for knowing about things indirectly'.[29] His concept of teaching based on knowledge integrated by the senses, the mind and practice gave a decisive impetus to Polish education. The concept of the methodology that he developed for elementary education was entirely modern. Several new editions of his works testify to the topicality of his ideas and his approach. They include not only his principal work, *Object Lessons* (1960), but also his *Secondary Educational Writings*, reprinted in 1968.[30] W. Okoń was certainly right in his observation that 'in the development of contemporary knowledge of the process of teaching and learning, Dawid's work is as current as ever today'.[31] Due to the language barrier – Dawid wrote only in Polish – his work is not known, studied or appreciated outside Poland.

Notes

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2. L. Krzywicki, Nieco wspomnień o J. W. Dawidzie [Some Memories of J. W. Dawid], *Wiadomości Literackie*, No. 17, 1934.
3. *Głos* [The Voice], No. 45, 1905.
4. H. Lukrec, *J. W. Dawid: Szkic biograficzny* [J. W. Dawid: Biographical Essay], p. 15, Warsaw, 1933.
5. Ibid., p. 21.
6. Ibid., p. 36.
7. Dawid, *Nauka o rzeczach*, op. cit., p. 74.
8. Ibid., p. 169.
9. J. W. Dawid, *O duszy nauczycielstwa* [The Souls of Teachers], pp. 72–3, 3rd ed., Warsaw, 1946.
10. J. W. Dawid, *Inteligencja, wola i zdolność do pracy* [Intelligence, Will and Aptitude for Work], p. 49, Warsaw, 1911.
11. Ibid., p. 64.
12. J. W. Dawid, *O duchu pedagogiki eksperymentalnej* [On the Spirit of Experimental Education], 1912 (pamphlet).
13. A. Cullere, *Magnetyzm i hipnoza z punktu widzenia klinicznego, psychologicznego, medycznego i prawnego* [Magnetism and Hypnosis from the Clinical, Psychological, Medical and Legal Viewpoints], Warsaw, 1888; P. Gibier, *Spirytyzm* [Spiritualism], Warsaw, 1889.
14. R. H. Quick, *Reformatorzy wychowania* [Educational Reformers], Warsaw, 1896; G. W. Patrick, *Psychologia kobiety* [The Psychology of Women], Warsaw, 1896; E. Demolins, *Nowe wychowanie* [New Education], Warsaw, 1900.
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16. J. W. Dawid, *O intuicji w filozofii Bergsona* [On Intuition in Bergson's Philosophy], Kraków, 1911; J. W. Dawid, *O intuicji w mistyce, filosofii i sztuce* [On Intuition in Mysticism, Philosophy and Art], Kraków, 1912.
17. I. Moszczenska, 'Moje wspomnienia o J. W. Dawidzie [My Memories of J. W. Dawid]', *Wiadomości Literackie*, No. 17, 1934.
18. Lukrec, op. cit., p. 14.

19. Z. Nalkowska, 'W domu Dawidow [At Home with the Dawids]', *Wiadomości Literackie*, No. 17, 1934.
20. R. Wroczyński, *Myśl pedagogiczna i programy oświatowe w Królestwie Polskim na przełomie XIX i XX wieku* [Educational Thinking and Educational Curricula in the Kingdom of Poland at the End of the Nineteenth and the Beginning of the Twentieth Centuries], p. 58, Warsaw, 1955.
21. H. Spencer and F. Dittgens, who are the most representative supporters of this educational approach, viewed the principal goal of education as being preparation for work.
22. A. Dygasiński, *Obraz psychicznych zjawisk w organizmie ludzkim* [The Image of Psychic Phenonema in the Human Organism], p. 8, Warsaw, 1885.
23. Wroczyński, op. cit., p. 75.
24. Ibid., p. 76.
25. Dawid, *Inteligencja . . .*, op. cit., p. 26.
26. H. Von Hentig, *Was ist eine humane Schule?* [What is a Humane School?], Munich/Vienna, 1978.
27. *Edukacja narodowym priorytetem* [Education: a National Priority], Warsaw/Kraków, 1989.
28. Dawid, *O duszy nauczycielstwa*, op. cit., p. 11.
29. Dawid, *Nauka o rzeczach*, op. cit., p. 304.
30. J. W. Dawid, *Pisma pedagogiczne pomniejsze: Wybór, wstęp i komentarz z B. Wilgocka-Okoń* [Secondary Educational Writings: Selected and Introduced with Comments by B. Wilgocka-Okoń], Wrocław, 1968.
31. Dawid, *Nauka o rzeczach*, op. cit., p. lxix.

19. Z. Nałkowska, "W domu Dawidów" [At Home with the Dawids]", Wiadomości Literackie, No. 17, 1934.
20. R. Wroczyński, *Myśl pedagogiczna i programy oświatowe w Królestwie Polskim na przełomie XIX i XX wieku* [Educational Thinking and Educational Curricula in the Kingdom of Poland at the End of the Nineteenth and the Beginning of the Twentieth Centuries], p. 58, Warsaw, 1955.
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23. Wroczyński, op. cit., p. 73.
24. Ibid., p. 76.
25. Dawid, *Inteligencja* . . ., op. cit., p. 26.
26. H. Von Hentig, *Was ist eine humane Schule?* [What is a Humane School?], Munich/Vienna, 1978.
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31. Dawid, *Nauka o rzeczach*, op. cit., p. lxix.

JEAN-OVIDE DECROLY

(1871–1932)

Francine Dubreucq

An unforeseen career

Nothing in Jean-Ovide Decroly's early life would have led to a forecast of a career in education. Coming from a strict provincial background in the small Belgian town of Renaix, he had to face the demands of his parents, who were obsessed with the academic success of the most gifted of their children. His turbulent spirit led him to detest the two boarding schools that imposed a classical Greek and Latin education, remote indeed from his passion for drawing, dancing, music and, above all, natural science. He appreciated all the more his years at the medical faculty of the University of Gent, where he was a student assistant before turning to the highly experimental discipline of pathological anatomy.

The young biologist was soon to discover the medicine of the mind. As the brilliant winner of the University's Competition and of the award of the Travelling Scholarship Foundation, he spent the 1896/97 academic year at the University of Berlin and the Salpêtrière Hospital in Paris where he met avant-garde specialists in mental illness and turned towards neuropsychiatry, and then to psychology – just as Freud had done in the same places twenty years earlier. But Decroly steadfastly affirmed that biological and mental phenomena, the 'biological and mental foundations' of all behaviour, were correlated. In 1898, Decroly moved to Brussels with his young wife, Agnès Guisset. At the University of Gent he again took up his research on mental illness and on the pathological anatomy of the brain. The clinic in the hospital setting was of more interest to him than were the patients. He also began working at the Brussels Polyclinic as an assistant in the neurology department and, shortly afterwards, was put in charge of the section for 'abnormal and speech-defective children'. This experience was both painful and decisive. Faced with the poverty of the cities, Decroly discovered the human, social and educational abandonment that his young patients suffered from. The working-class state schools almost always condemned them to failure and to the fringes of society. It was remote indeed from the preventive education that became his steadfast ideology. 'I contend that [these state schools] have a harmful influence, and an unquestionable anti-social effect; not only do they fail to prepare us for life, but they also turn many of us into life's derelicts, the underclass, or at least they do nothing to prevent us from entering into that class – which amounts to the same thing'.[1] School could nevertheless be 'perhaps the most powerful means of preventing idleness, poverty and crime . . . not as it is organized at present, since it is itself to a large extent the direct or indirect cause of these ills, but as it ought to be organized and as it is already organized in some fortunate places where they have understood the evil that it does and the good that it can do'.[2]

If Decroly ascribes a preventive role to schools as a priority, it is primarily to supplement the parents' educational function: 'in the life of our contemporary society, the role of the school becomes more important as the parents' role has become more difficult and as adaptation to life has become more complicated'.[3] In the all-too-frequent cases where the family situation is clearly harmful, the medical and educational protection of the children is obviously preferable to 'hospices, asylums, reformatories or prisons . . . These are pernicious bandages that infect the wounds instead of curing them.'[4] He therefore joined in the fight for compulsory schooling (which was not attained in Belgium until 1914, and did not become fully effective until 1920); but he tied this goal to an obligation on the schools' part to prepare each child effectively for life as a person, a worker and a citizen.

Modern education was not going to change solely to fulfil this social function. The evolution of technology and knowledge encouraged the emergence of new intellectual approaches, and it was vital to adapt education to the requirements of modern science. Like his contemporary, Léon Brunschwig, Decroly denounced the monopoly position of classical 'humanities' focused on mankind, based on literature and imbued with a Cartesian rationalism limited to its philosophical content. Teaching would have to be opened out to knowledge of matter ('nature') gained over a period of three centuries. Technical and scientific training would be based on the observation of concrete facts, the use of the experimental method which allows analysis of the facts, introducing the students to technologies which make it possible for human effort to transform nature, and providing access to sciences which ensure that experiments can be quantified and extrapolated. The classical humanities themselves would be integrated with the human sciences, thereby affording new perspectives on human phenomena. This modernizing of educational content would finally adapt schooling to the evolution of contemporary culture, starting from the realities of the child's own surroundings.

It would therefore be necessary to destroy the very foundations of the traditional schools, their methods, their curricula and their grading systems, and replace them by entirely different approaches. Like many others before and after him, Decroly could have limited himself to a Platonic denunciation of the flaws of education, but as a man of action he sought to ensure the immediate future of working-class state education. Decroly would adopt radically new practices on the basis of facts.

Laboratory schools

An unexpected decision was to change Decroly's life entirely, as well as that of his family. The Paediatric Society had asked him to become the head physician of a small clinic that it was planning to establish in order to observe and treat children termed 'abnormal'. Decroly was familiar with Wundt's experimental psychology laboratory in Berlin, Schuyten's laboratory in Antwerp and the work of Binet and Simon in France, but he distrusted the artificial conditions of examinations by outside consultants. He accepted the offer, but on condition that he could take these 'awkward' children to live in his own family home. They would be raised there with the children that he himself hoped to have (he would later have three children of his own). Decroly expected thereby to increase the richness of his psychological observations, which were clearly dependent on the children's surroundings.

The Institute of Special Education – Psychological Laboratory of Dr Decroly – opened in 1901. Decroly was to stay there for the rest of his life – thirty-one years – first in the city centre and, after 1910, in a small country property in the Brussels suburbs, called the Vossegat (Foxhole). The laboratory was immediately transformed into a laboratory school. No matter how 'awkward' they were, the little boarding students lived a normal life in a normal atmosphere. At the Institute they received the care that their conditions demanded, but also, and most importantly, the maximum of education that they could deal with. In observing their lives, Decroly modified the definition of 'mental irregularity'. All the children at the Institute proved to be capable of achieving sufficient progress for Decroly to affirm, as Claude Bernard had previously, that they were educable in the same way as normal children, at nearly the same rates and attainment levels.

He would soon have the opportunity to demonstrate this contention. In 1907, some parents who had followed Decroly's work asked him to take in their entirely normal children, seven boyş and girls of all ages, in a second school which was to be the renowned Ermitage, situated initially in the heart of the city, and transferred in 1927 to a rural, wooded neighbourhood in an inner suburb of Brussels. From then on, without ever abandoning its original status as an experimental school, the Ermitage developed steadily from kindergarten to the end of secondary school.

The same methods would be employed thereafter at the Institute and the Ermitage, with the students periodically moving from one to the other. They were in effect two experimental schools in which methods of changing the entire educational system were systematically tested. But the stir created by Decroly's research had, over a period of several years, aroused the ire of conservative circles. The application of the same educational methods in special and regular education went against conventional ideas. Deliberately integrated coeducation was disturbing (it preceded by thirty years Belgium's initial and very timid effort at coeducation). Finally, Decroly was accused of transforming his students (and his own children) into guinea-pigs. However, this little world of his shone with its own fervour.

Furthermore, his two schools did not lead Decroly to forget his principal goal: the general introduction of the new methods into the entire education system. In 1902, the city of Brussels would be the first to adopt his methodology in its regular classes. A collaborator at the Institute of Sociology, professor at the Faculty of Advanced Studies, at the teacher-training colleges and at the Free University of Brussels, Decroly also was to be found everywhere that suffering children needed him. He founded, co-founded or was a driving force behind the Orphans' Home, the Vocational Guidance Office, the Brabant Farm School, the Fund for the Gifted of the working-class schools and the Medical Inspection Service for Juvenile Delinquents. The responsibilities that he assumed and allotted to educators went far beyond the classroom walls. In *Médico-pédagogie* he contemplated the concerted action of physicians, psychologists, teachers and social workers, all taking part in an effective system of psychological–medical–social-educational orientation.[5]

These multiple activities were accompanied by a very rich scientific output. Decroly's bibliography, as sole author or with various co-authors, includes more than 400 titles. If we count, in addition to these functions, his many trips to England, Spain, the United States and Latin America, we can understand that his students, friends and collaborators remember him as a man who was incredibly active, but prematurely overcome by fatigue. He died in 1932 at the age of 61, on a pathway in the Institute's garden, near to the little 'awkward' children whom he had never left.

Few men's works give such a compelling image of the link between theory and practice. His concepts always stemmed from realities, for which Decroly had 'a deep, healthy and vigorous respect'[6]. His theorizing, always provisional and calling for new experimentation, is marked by the greatest prudence. None the less, there emerge from his psychological works four essential elements for understanding the way children's minds work, and therefore for education. These were the psychogenetic method, the function of globalization, interest and expression.

Studies of psychogenesis

In choosing to observe children's spontaneous reactions without any preconceived psychometric apparatus, Decroly imposed difficult observational constraints. Even though it was he who introduced into Belgium the Binet–Simon testing method, then at the forefront of the young science of child psychology, he always refused to let it play a determining role: 'The test is one form, and not the only form, of testing a person. It does not obviate the need for observation, it supplements observation and is supplemented by it; it is illuminated by observation and, in many cases, must defer to it. Examination by test is the psychographic minimum . . . useful as a first approximation.'[7] Too limited, anonymous, often administered collectively, carried out in artificial conditions, tests, sample surveys and psychological consultation provide only partial information. Decroly always preferred long-term individual biographies, following step by step the 'psychogenetic' evolution, first conducted by Darwin (*Biographical Sketch of an Infant*, 1877).

He began his *Études de psychogenèse*[8] by observing his eldest daughter, whose cradle, as one of Decroly's collaborators, Julia Degand, discovered in amazement, 'was covered with balls of all colours, a bell and a little doll, all of which could swing back and forth [because the father] wanted to observe how his baby's sensations developed'. She herself was assigned the systematic observation of the couple's second daughter, from her birth (in 1905) up to the age of 6. Decroly had developed a triple technique of observation: a detailed daily journal, numerous photographs and films, the oldest of them dating from 1906, and being doubtless the first psychological films (shortly before those of Gesell). Decroly's filming (which included some fifty titles) was a response to a necessity of the experimental method, since it ensured the reproducibility of observations or experiments by eliminating 'the personal equation of the observer'.

This continuous and long-term observation of a single child in its own natural setting gave due respect to growth and brought out the different components of the total personality, but it required numerous cross-checks. Decroly's *Études de psychogenèse* were carried out over twenty-five years from 'little S . . .' to Nanette, the adopted child who comforted the last three years of his life. The studies analysed the evolution of notions of colour, quantity, time, age, the origin of life, values, competition and drawing. One remarkable chapter is devoted to questions asked by children up to the age of 6.

The great difficulty of psychogenesis lies in passing from the particular to the general, from the singular to the norm. Decroly therefore systematically compared his observations with those of Stern, Dearborn, Preyer, Shinn, Baldwin and others. Their convergence allowed the establishment of the constant factors in development. But individualized observation also demonstrated the specific nature of each personality, which presents itself as an indivisible whole, inescapably linking body and mind (psychosomatic), the sensory and the perceptual, the affective and the intellectual. 'It is the totality of the individual who at once perceives, thinks and acts.'[9]

The complexity of the life of the mind increasingly turned Decroly towards differential psychology. 'The combinations of mental effects are really so numerous that there are very few clearly defined types and a multitude of intermediate types.'[10] This observation puts an end to the notion of averages and thus of the average child, the 'statistical' child, which governs the educational establishment. Similarly, it means that psychological and technical vocational guidance testing cannot make use of any simple rules of thumb.

The function of globalization

Psychogenesis has demonstrated a fact that is particularly important for early learning – the child is neither a short adult nor a blank sheet of paper. Children are, quite simply, 'different'. Decroly conducted many studies of the development of mental functions from before birth to the age of 15 or 16. These studies, too long to describe here, essentially bring out the notion of synergy between individuals and their surroundings, the innate and the acquired, phylogeny and ontogeny. Children are born with an 'immense reserve of nervous equipment', whose structures alone are hereditary while their stimulation by the child's surroundings ensures their functioning. Activity is therefore the key to growth, and education can either lead this activity in a favourable direction or hold it back or direct it perversely.

Through ignorance of the way children's minds work, adults often misunderstand the powerful 'epistemophilic' energy that children manifest through play, experimentation and imitation. They also misunderstand the strength of the first representations that children make spontaneously for themselves in response to contact with the outside world. They are really global, not subject to analysis, and they meld into a single unit the properties of the object and the reactions of the children themselves. In a drawing or a story, for example, these 'wholes' are demonstrated either in undifferentiated groups or on the basis of a single dominant element which calls forth an indivisible whole.

These global outlines are functional, that is, they serve the children's personal activity. They satisfy the children's need to identify data from the environment (their own bodies, their mothers), to appropriate them and to master them (play, opposition), to produce them (drawing, building), to transform them (dream, fantasy) and to summon them up mentally. The more the surroundings stimulate activity, the more these representations develop the children's motor, sensory, perceptual, affective, intellectual and expressive capacities, endowing them with intimate experiences that will be the basis of all their future learning. Globalization dominates thought until the age of 6 or 7. Children progressively attempt to discover the relevant elements that will determine their access to analytic thought.

Finally, to clarify a terminological point, Decroly explicitly preferred the term 'globalization' to 'schematization', 'syncretism' or 'Gestalt'. It alone expresses the massive density of the phenomenon, in which analysis is introduced very partially at first, and with more and more precision after the age of 7 or 8. The result is that to begin instruction on the basis of successively acquiring isolated bits of information necessarily runs into a vacuum when dealing with a thought process that functions in a different manner.

Interest

The analysis of this apparently simple notion considerably broadens the field of psychological investigation, well beyond the domains of intelligence and reasoning studied by classical psychology. In a report, which he published with G. Vermeylen in 1920,[11] Decroly undertook the study of 'tendencies' (a term that is close to 'drives'), from rudimentary tropisms (food, reproduction, protection, defence) to developed manifestations of sensibility. Even the reactions of an amoeba demonstrate the existence of a 'self' that responds to the onslaught of its environment by sensory-motor reactions and assures the survival of each individual by the satisfaction of its needs. These instinctive drives are evidence not only of an 'effort' at identity in relation to the environment, but also of an effort of adaptation. In *Quelques notions sur l'évolution affective chez l'enfant* (1927),[12] Decroly, like many of his contemporaries, reflected on the nature of intelligence. He tended to assimilate it to 'a higher instinct' which 'associates its activity to that of instincts and can thereby modify their spontaneous manifestations to such a degree that they are transformed to the point of losing their original appearance. What has been termed sublimation or the intellectualization of instincts is in fact only the result of that action.' Such sublimation generates 'higher sentiments' and, in man, attains the level of emotions and moral, aesthetic and sentimental values. The association of tendencies and cognition transcends both intelligence and affectivity. It stems from thought which is a powerful mix of logic and contradiction, science and creation, reproduction and invention.

It is important therefore to combine the classic quantitative and statistical intelligence tests with projective personality tests of a qualitative nature. Examination cannot be reduced to the measurement of intelligence quotients alone nor, furthermore, can it overlook the cultural factors that instil 'habits' or 'acquired instincts' in every environment. In 1922, Decroly therefore designed a 'Questionnaire relating to Children's Affective Reactions in the Environment where they Habitually Live'.

A child's numerous observable tendencies define his personality, stemming initially from a natural egocentrism which creates a single fused object from his own being and the world around him. Extremely dependent on those around him for the satisfaction of his various needs, he is often in a state of want, which he expresses by the violent affirmation of his ego, but also of his pleasure when he obtains satisfaction. His growth ensures him progressive autonomy. If he is hungry or frightened, he seeks nourishment or flight. This adaptive behaviour suppresses the temporary disequilibrium created by the state of need, but the excitation that he aroused has put his nervous system under stress and creates a state of 'attention or pre-attention', which leads progressively to astonishment and then to reflection. The energy directed at suppressing the need is transformed into interest. 'We will call *interest* the internal sign, common to all the needs and feelings that a person has (*desire* being the conscious form of this phenomenon), while *curiosity* is the external sign, particularly apparent to an outside observer, an external sign which can be either conscious or unconscious.'

A pedagogy of interest therefore potentiates children's basic motivations better than a pedagogy of reproduction, while it also frees their creativity. But tendencies also play a fundamental role in relations with other people and explain the sociological make-up of the groups of children, their characterological roles and their relations with adults. Overvaluation of intelligence to the detriment of the affective compromises the harmonious development of the child's personality. In a deliberately rounded education, it is essential that the organization of educational time should take account of this.

Expression

It has long been known that the variety of levels of language in different milieux is a major obstacle to achieving a unified education. Unfortunately for the children of the working class, small farmers and immigrants, educational standards are a strict reflection of the customs of the petty or middle bourgeois classes, for whom the use of the established code confers a degree of sociocultural prestige. Decroly's contacts with 'children with speech problems' very soon oriented him first towards sociolinguistic and then to psycholinguistic research, which led him to argue against the imperialism of language in educational programmes. 'Decroly's great merit was to have demonstrated the unity of source among all methods of expression,' wrote Henri Wallon.[13] He very soon advanced an extremely broad definition of language, considered as a system of signs 'at once physical, physiological and mental . . . individual and social', as expressed by Ferdinand de Saussure. To avoid any misunderstanding, Decroly even replaced the term 'language', too often limited to spoken words, by 'expression', which includes the individual's exteriorization on the one hand, and on the other hand the interior formulation by which everyone takes in any outside contributions.

Expression mobilizes the body (gesture, movement, mimicry, dance), the hand (experimentation, drawing, building), the spoken word (calling out, singing, talking), the written word (reading, writing, codes) and art (painting, music, poetry, theatre). The distribution in daily life of these different modes of expression proves the importance and the value of non-verbal manifestations, which are generally overlooked or even sacrificed by schools and by most tests, which call upon articulated language or conventional codes:

> The aptitudes that most impress people in gifted children are often precocity of speech, the tendency to read early and alone and to compose tales and stories. Of course, these things augur well for adaptation to academic work and are in line with the results of the usual tests, which is to be expected since their standardization was established taking account of children's progress in school. But this is erroneous, confusing intelligence and language. This error comes to us from Greek philosophy and has served as the basis for nominalism.[14]

Certainly words are a useful tool; however, every culture that so limits itself inevitably sinks into verbalism and reanalysis of texts. It is the *savoir-faire* of a skilled people that ensures the evolution of technology. In such fields, intelligent activity implies processes that are independent of words and are freely attributed to practical knowledge. In his vocational guidance service, Decroly devoted several very detailed monographs to the specific qualities required in order to be a carpenter, bookbinder, draughtsman, etc., but, of most importance, he also developed three completely original tests, 'puzzle boxes' of increasing difficulty, whose silent manipulation demonstrated the existence of non-verbal reasoning. These tests were aimed at avoiding errors in the guidance of gifted young people, held back by their own weakness in expression or that of their environment. They proved the existence of complex deductive and inductive reasoning, based on 'perception, intuition, observation, memory, imagination, comparison, analysis, abstraction, generalization and synthesis.'[15] These 'Decroly boxes' were used in Belgian career guidance centres until 1950, when they were given up because the individual examinations took up a great deal of time and because the standardization had to be revised.

'Practical non-verbal auto-intelligence' plays a continuous part in the activities of daily life and in 'problem-solving' in many work activities. It combines operational thinking with such valuable qualities as dexterity, co-ordination of movement and rational exploitation of physical resources. Technical skill brings into play an inventiveness that 'provides the appropriate solution'.

Decroly's concept of expression is important for its social and educational consequences. The traditional school, like an upside-down pyramid, favours from the start a very special type of child – the little future intellectual, whose verbal qualities it develops to excess. On the other hand, it devalues concrete expression by considering manual work, gymnastics, drawing and play as subordinate and of negligible importance. It thus reproduces social prejudices that look down on 'low-class work'. Decroly warned against the danger of compulsory education that would discredit technical and vocational training and even social and artistic education. The overvaluing of white-collar status carries with it the danger of leading to serious disequilibrium in economic life if the choice of manual work becomes the penalty for failure in school.

Recognition of the great value of practical expression makes it a necessity, on the contrary, to develop to the full in all children the education of their bodies, senses and manual skills, in contact with things and not just books, in the turbulence of a living environment and not just in the deadly silence of the classroom. Ease in all forms of expression promotes lifelong personal equilibrium for the scholar as well as the practical worker.

From psychology to education

The links between 'pure' and applied science are often unclear. They imply, tacitly or not, a hierarchical relation in which each of the two disciplines claims dominance over the other. Was Decroly a victim of this conflict? Jean Château opportunely states that 'Wallon remarked, from 1948 on, about the contrast between the fame of Decroly's educational work and the relative neglect that has befallen his psychological work. To be overshadowed by oneself is not given to everyone. It seems that Decroly the educator has eclipsed Decroly the psychologist.'[16]

The interaction of theory and practice has its dangers for theory, especially if practice is applied to objects in flux. In the reality of education, actors, situations and goals are continuously undergoing modification. In imposing on himself the faithful translation of psychological observation into educational action, Decroly exposed his research to the immediate concrete application of its results. He committed himself thereby to a pragmatism which, to this day, exercises a considerable influence in the human sciences. Jean Château points out that Decroly even made the effort of translating *How We Think* by John Dewey, who, like Decroly, put speculative reflection to the decisive test of action.

The concern for adapting any educational action to the mentality of every child at every age accounts for the exceptional imagination shown in matters of method by Decroly, whose boldness made him beyond doubt the most fertile innovator and practitioner in the entire history of education. He never hesitated to abolish completely anything that offended against the natural evolution of thought, nor to explore totally new avenues. He said:

> Those who seek to limit the mental work of primary school to acquiring techniques and to the systematic study of grammatical rules and arithmetical theory, on the pretext that they

went through this same regime themselves with no harm and then became knowledgeable specialists in certain fields, are the unconscious executioners of children's intelligence and prove that they are totally ignorant of laws that are more important than those of grammar and arithmetic, namely the rules of child psychology which, in fact, dominate the others. Furthermore, none of their arguments can prevail against the patent facts which can be seen every day if you make the effort to observe what goes on in primary school, namely the failure, the virtually absolute fiasco of formal procedures – for more than 75 per cent of the school population.[17]

On the contrary, one has to find the best ways of reducing the malaise and suffering of the children who are worst off, of ensuring their progress, of leading them towards the maximum autonomy that they are capable of. Decroly sought new approaches wherever children displayed the tragic spectacle of abandonment, poverty and exploitation: 'No downgraded children, no backward children'.[18] The pressing nature of the teacher's duties made it necessary to apply the experimental approach, following the methods tested in science.

An evolutionary approach to teaching

However, experimentation in education gave rise to heated controversies at the beginning of the century. Although work in the field sometimes suggested original solutions, such as mutual teaching or educational co-operation, teachers generally limited themselves to applying the official directives which the growing power of the state inevitably depersonalized. Furthermore, the curricula and textbooks laid down qualification standards suitable for the recruitment of administrative officers in the civil service, from clerks to top graduates from the élite universities. Competitions and examinations sorted the candidates out. The sole aim of these methods was to prepare people more effectively for the tests. They could not be other than normative.

On the other hand, active education assigned the school the far more complex task of ensuring the personal development of all children, based on the contribution of the new sciences. These methods could no longer emanate from an authority, even one that was well informed and kindly. Decroly put them forward now as hypotheses and submitted them to experimentation, as he explained in 1907:

> Do you really think, they say, that you can test the value of a method in the same way as you might test the strength of steel, the sugar content of beet or the action of a drug on rabbits! It is impossible. Certainly children are not experimental objects, but meanwhile, they are exposed to inexperience. . . . What is there to prevent the establishment of pedagogical – or pedotechnical – laboratories? Children will not suffer any more than they do now from the absolutely irrational regime that they are subjected to.[19]

These 'pedagogical laboratories' would operate in the schools themselves, and not in university institutes remote from the life of the schools. In this way, the experimental classes would more directly shake up the immobilism of the schools, 'kept on the fringes by insufficiently tested programmes with methods that have not been subject to any serious criticism'. Any tendency towards dogmatism must be exposed:

Fröbel and Pestalozzi have said this; Herbart and Comenius have said that; but arguments based on authority are no longer sufficient in science, not even in veterinary science; they can no longer suffice in education, which should also claim to be a science. And they cannot suffice precisely because the views of Fröbel and Pestalozzi are the opposite of those of Herbart and Comenius, because arguments based on authority are contradictory, while those that are gained through rigorous and mathematical observation must be in agreement.[20]

The universities would be responsible for providing the fundamental contributions offered by the basic sciences – biology, psychology, sociology – all of which nurture 'pedology', or the science of children according to the definition advanced by Chrisman; applied science, 'pedotechnology' (a neologism of Decroly's) would carry out experimentation in the laboratory classes. Methods that proved to be successful should be integrated into a homogeneous and coherent educational concept, or 'method', before being applied in the regular classrooms, while those techniques that actual usage showed to be invalid should be regularly sent back to the researcher.

This clarification of vocabulary demonstrates the importance that Decroly attached to educational techniques. 'What has been called the Decroly method does not really possess the usual characteristics of a method . . . it protects itself from becoming rigid and perfect'.[21]

Such a flexible concept demonstrates that even if evolution and current events lead, in the interests of the children, to the introduction of variable elements, education can also rely on many constants. This applies to the most powerful unifying concept in Decroly's approach to education, that of 'life'.

The role of the school in life

This key word covers such a broad expanse that it would be dangerous to reduce it to the slogan of unknown origin, 'For Life, Through Life', which is often used to define Decrolian education. We must take the polysemy literally.

In an initial sense, the life of a man or a woman is the share of happiness and self-realization that is in store for every individual or, on the contrary, his or her existential distress. By 1904, Decroly had already gained enough experience to be able to denounce the lack of concern of an education system that destroyed the future of many of those who were entrusted to it. 'Schools not only prepare only a very few of their children for life, but for many children they even constitute an obstacle to their normal development, making them lose precious time.'

The first objective that must be assigned to the schools is to ensure that every individual has opportunities for success in the life that awaits them – a person's own life as man or woman, father or mother, citizen and worker. Schools have progressively reduced individual opportunities for advancement. 'A system that classifies people at the age of 20 according to the certificates they have obtained . . . becomes dangerous, because it drives all young people to the pursuit of useless diplomas and distorts ideas on the role of education. . . . The strongest succeed despite everything, but so many are destroyed there or are warped for their entire lives.'

In a second sense, it must be remembered that the child is a living creature, in the biological sense of the term; he has a body, senses, physical and affective needs. Before becoming a thinker leaning over his book and his pencil, he is a being, in the fulness of his growth, whose motor development requires intense practical activity. Decroly, writing with the verve that lent him indignation, accused the educational establishment: 'Schools impose silence and immobility on people who must learn to act and express themselves; after physical sluggishness, they achieve mental torpor'.[22] The reason is that education has been put in the hands of adults whose very specialized training has given them sedentary habits that they confuse with favourable conditions for educational development. 'We are too intellectual, too contemplative . . . We forget that there was a time when mental work was not so easy for us . . . and we had to go though a series of stages to adapt ourselves to purely cerebral work.' Movement is the external form of action, which is itself the key to technological and cultural skills. Spontaneously, children 'love movement, but still do not know that they are acting; nature has provided them with the possibility of acting before the brain is capable of intervening to control this activity'. The role of education thereby appears particularly clear. 'We must always endeavour to intersperse control by the brain between external excitation and action, but action should continually accompany mental work as a control and stimulus.'

The reason is that education does not see that 'even discipline has everything to gain in permitting the child's energies to be expended during classes'. It believes it must reward 'the good students [who] have brains like the stomachs of those who, it is said, can digest everything, even rocks', because they combine 'facility of expression, good verbal memory, and the approved dose of apathy and docility. . . . The rest rebel – they are the undisciplined ones, whose lack of discipline may really be simply a sign of superior intellectual health; but most of them just tag along far behind.'

This call for indiscipline leads to a higher discipline. Life finds its fullest definition in the functional synergy of all of a being's activities. Children will become aware of the total and simultaneous development of their entire being. They will explore the reactions of their bodies and senses, and sort out later the affective and intellectual factors that define their personality. Children will learn 'how they are made, how their organs function and what they are used for; how they eat, breathe, sleep, work, play; how their senses act and how they serve them; how their members move, particularly their hands, and what services they provide them; why they are hungry, thirsty or sleepy, why they are frightened or angry'.[23]

In a third and almost ecological sense, life is constructed by dealings with the environment. A clear-cut motor and sensory education ensures informally the exploration of the close surroundings in which the children's life takes place (their home, neighbourhood, school, etc.). It progressively opens up space for them (nature, city, factory, market, offices, museums, institutions, etc.). It hardens them by physical education, manual work, and handling workmen's tools (hammer, saw, plane, spade, rake). Why then have schools chosen the 'bureaucrat's table' to deck children out with 'a civil servant's culture', in which 'general culture is diminished everywhere in favour of intellectual culture alone'?

The death-provoking atmosphere of the traditional school must vanish. The lines of benches, the rostrum, the rows, the blackboard, the school-yard are not suited to discharges and exchanges of energy. 'I saw, little by little, that the classroom is a last resort, and that the natural environment, as constituted by a farm, fields, meadows, animals to raise, plants to harvest, represented the real intuitive material capable of awakening and stimulating the forces hidden within the child.'[24] The child and the teacher would from then on work on first-hand data, collected in real-life situations or from 'real' books. Decroly abolished the pallid imitations of the real offered by stuffed animals, anthologies, herbariums, manuals, and also did away with the arrogant architecture of schools which shuts children up in its fenced-in monastic universe, in its high walls with inaccessible windows, its covered playgrounds and its yards. The school, its doors wide open, would collect materials for observation, bringing them in from outside; the workshop-classroom would replace the auditorium.

However, Decroly did not propose that children should live in a pastoral setting. Society is composed of several interdependent milieux, and one of the goals of education is to prevent their compartmentalization. The first educational experience is most fully achieved in nature, which awakens the child's curiosity by its enormous variety, its seasonal rhythms and its poetry too. The country child is much better off in this respect than the city child, who is overprotected or underprotected, and who can hardly understand the complex mechanisms or the institutions that surround him. Nature undergoes more visibly the transformations that man imposes on it. This immense effort of appropriation reveals itself in farms, craftsmen's workshops and markets. At the same time, the destruction of essential equilibria will lead the child, a willing predator, to reflect on his own exuberance! He will then come on to industry, in its technical, economic and human aspects; public life in the various administrative, legal and political agencies; and culture, in museums, monuments, entertainments and libraries. If education could, in addition, organize the participation of young people in various adult occupations, 'the number of classroom hours devoted to teaching, strictly speaking, could be much reduced.'[25]

This education in life brings out a fourth meaning of the word, that Decroly was particularly attached to: membership of the chain of living things. This education, associating the stages of growth to more and more complex environments, from nature to large modern cities, plunges children into the flow of life and into the very evolution of their species. Decroly saw a great educational advantage in satisfying children's successive attraction, first for gathering and hunting, then for handicrafts, mechanical activities, construction, etc., then for experimentation, and finally for institutional games (courts, business, etc.) and creative activities (poetry, stories, graphic arts, etc.). Although Decroly never really believed in the theory of recapitulation (supported by G. Stanley Hall), he advanced an educational process in which ontogeny in abbreviated form recapitulated phylogeny. It showed great interest in respecting the characteristics of children's play at different ages and in bringing them into teaching activities, where they introduce the children to the phases of civilization that preceded them.

He thus came to one final meaning of the word 'life', arising from the political and social role that everyone can either submit to passively or take on voluntarily: 'the best adapted are those among whom mutual aid is the best organized'.[26] In other words the struggle for life imposes solidarity.

> We live in society, our weakness necessitates it, and our diverse needs, which are a consequence of civilization, require it also. Are we aware enough of this law, do we understand sufficiently what we must be for our fellow men, do we sufficiently perceive the fact that our lives and those of others are closely and constantly intertwined?[27]

Educating a citizen, which is a long and difficult process, evolves from egocentrism to individualism and then to collective discipline. One of the best justifications for schooling is to ensure a community life that 'planes down egoistic tendencies . . . we learn more about living than about reading'. This learning of social life is a matter of the children's initiatives. Their order will not stem from an order imposed on them, nor their freedom from a freedom bestowed on them. They will need time to adapt to otherness and to the community; taking effective charge of responsibilities will give rise only slowly to co-operation. Everyone must have their own experiences of joint and individual management. Paradoxically, autonomy does not spring from non-directivity, but from the consciousness of the rights and obligations of an active member of society. School so conceived is a political microcosm, undergoing problems, crises and conflicts which are overcome, as successfully as possible, through the active co-operation of all the partners.

The attribution of individual and collective responsibilities is a matter of practical ethics for which a substantial place should be reserved in the timetable. It should be based on the election of different delegates, the rotation of responsibilities, the rendering of accounts, etc. Real powers for the management of the school should be devolved to students. The political option that this education of the citizen implies is clear: 'Democratic government must be considered as the most appropriate form of state for encouraging evolution and adaptation to progress.'[28] This, therefore, is what governs the life of a Decrolian community.

From play to work

Decroly was not content to 'affirm the superiority of education over instruction [like those] who, disdaining the elementary techniques of human knowledge, the keys to all the educational programmes required by our state of civilization, concern themselves above all with creating a person, but are not afraid to leave him illiterate'.[29] In the final analysis, education is based on the act of learning, even, and most importantly, if it is a question of learning to live, as the child well knows: they go to the pool to swim, to the school to know more.

Several months of daily battles to demonstrate that 'awkward' children could be educated soon convinced the small team at the Institute (three women teachers) of the ineffectiveness of even the most modern methods in reading, writing and arithmetic. They would have to give up the eternal illusion that besets innovators: an atmosphere of confidence and affection is not enough to ensure learning automatically. The children remembered nothing, even with the incentive of specially made sentences written in chocolate.

But they did play, and of course their play was observed with scientific earnestness. Certainly, like all children, they handled dolls, played games of skill and group games, but above all, they invented. The Institute's gardens and sheds were a favourable terrain for countless activities – making paths, concealing hiding places, digging out tadpole ponds and building huts. Despite their clumsiness, the children displayed an energy, perseverance and will that owed nothing to adult help.

Affective psychology identifies in children's imitation and play factors essential for maturation, that Decroly included among the 'anticipatory instincts', preparatory to an initial form of intellectualization. 'What must be emphasized in regard to play is its role as preparation for serious activities; it makes the transition between instinctive activity, in the restricted sense, and work . . . in occupations whose goals are increasingly conscious, increasingly remote and indirect. . . . [Between play and work] there is a continuous range of activities, going from the most agreeable to the least.'[30] When they asked for rabbits, they entered quite naturally into the workings of the first of Decroly's 'educational games'. They were helped to discover by observation the best location, to plan, measure out and build a hutch, to read up on the breeds that could be raised and their feeding and protection, to write to wood merchants, veterinarians and breeders. An interest more powerful than chocolate had brought about a concentration that encouraged them to learn the first rudiments.

'Educational play' stemmed from these considerations;[31] from blind man's buff to little shops, from puzzles to logical games, this exercise was illuminated by the charm and the pleasure that children derived from play activities. With enthusiastic help from the children, Decroly and his team built dozens of games out of wood or cardboard, with a simplicity infused with poetry. The sets of games were carefully graded and 'related to the development of sensory perceptions, attention and motor aptitudes – visual, visual motor and auditory motor acuity, etc. – and to introducing arithmetic, perceiving time, reading, grammar and understanding language'. These first psychological/educational games were marketed and their success is well known.

Projects and work plans

Deferred interest is, therefore, the very foundation of the desire to learn. It gives the child power to accept the difficulty which will result in satisfaction. Unfortunately, 'schoolwork as now organized does not meet this condition and is more like forced labour, as Claparède pointed out, that is, an occupation that offers nothing of interest either in itself or in the goals that it pursues'.[32] Teaching has long been satisfied with curricula and textbooks, which were sufficient for the training of some few well-read people. In the nineteenth century, teaching methods were added on, and these followed each other at an increasingly faster pace in the twentieth century. Divided into years and different branches of instruction, weighed down by the acceleration of knowledge, the subject-matter became more and more encyclopedic. Schools tied themselves into knots in the vain attempt to provide comprehensive knowledge.

Active methods have had their supporters for centuries, without ever being able to solve the dilemma between being full of knowledge (supposedly learned), or being well balanced (supposedly effective). However, a choice is necessary, and Decroly did not hesitate:

> I can say that teachers are themselves simply subject to the same faulty regime which they apply, often despite themselves, and from which they are the first to suffer. . . . Sincerely, I say that if our system is mediocre and even bad, it is not the teachers' fault – it is all the fault of the curriculum. And I am not even hostile to the authors of these curricula, because they were the unconscious and therefore excusable agents of an inescapable force: tradition, which came down to them with the weight of three hundred, and even of two thousand years.[33]

He therefore liberated the small team at the Institute, and later at the Ermitage, from the fear of subject-matter, timetables, deadlines and textbooks. He said, 'What is necessary is the active participation of the students in their own education'. From then on, they would freely choose what subjects to study. Adults would only show them practically useful, technical operations, according to their stages of development. Curriculum planning was thus transferred to the children themselves. Each one of them suggested the subjects he wanted to deal with, and all the proposals were negotiated by the whole group, which then put together a group project (work plan), for a shorter or longer term (from a few days for the youngest children to one year for the oldest ones). A large double-entry chart gave the implementation schedule. The subjects to be dealt with were entered on the abscissa, and the methods of carrying out the tasks, on the ordinate (research, excursions, talks, team tasks, etc.). The necessary introductory training was also included there, as well as the exercises vital for acquiring and stabilizing this knowledge. Freedom of choice was a stimulant to schoolwork. Even if they were difficult, learning and exercises took their meaning from their immediate utilization. They were conceived as indispensable tools in the search for solutions; used repeatedly, they progressively enriched the mental tool-kit.

Contrary to common belief, the students' interests in fact confirmed the essential points of the official curricula. The children, immersed in the same culture as the authors of the programmes, lived in the same setting, posed the same problems and sought the same information. But the work plans did not have to be subordinate to an order that was remote from the students' immediate preoccupations, nor to a division into study categories which denied the interdisciplinary complexity of most issues. Furthermore, the study was synchronous with the interest or the current event that led to it.

The relationship with the teacher was also profoundly modified – there was no longer a *deus ex machina*, no longer a keeper of the keys disclosing day-by-day topics from a subject that he alone had mastered. The active verb 'to prepare' replaced the passive 'to review'. Not only did the students acquire a mental tool-kit of ideas and techniques, but they also had access to more practical tools. They used the same information as the teachers, and added their own, which was always personal and capable of enriching the dialogue. The considered use of different sources was more important than a definitive assimilation of a specified topic. It favoured an open and critical conception of knowledge which would last far beyond the school years.

This conception of work is both more demanding and more fun for the adult. He sees his knowledge develop at the pace of scientific development itself, and he often exchanges his rostrum for the approach of the researcher, as part of a team that is all the more unified because the subjects advanced by the students often require, in both primary and secondary schools, the collaboration of different specialists. The teacher must know equally well how to identify an odd-looking pebble and how to arrange a visit to an ultra-modern factory or make a dynamometer and, above all, he must be able to show the children that there is no such thing as omniscience!

From interest to centre of interest

The collective work plan nevertheless poses the particularly difficult problem of socialization of interests: 'If, like Jean-Jacques Rousseau, there were only one Émile to be in charge of, it would be rather interesting to follow how curiosity developed in the child's mind as each element made its appearance'.[34] But complete individualization is impossible: 'as soon as a number of children are brought together, the problem of each one's individual interest becomes difficult to resolve if one of them wants to write while others prefer to take a walk, do gymnastics or saw a piece of wood!' The technique of the collective work plan responds in part to this question, since it is based on negotiation and the search for consensus, but the basic question of its coherence still remains.

> Then I asked myself . . . what was important for a child, for all the children of Belgium, Europe and the whole world to have to know. Then I asked myself what kind of knowledge is most interesting to a child. . . . Well! I became aware that the most important thing that children should know is, first of all, themselves. . . . Everything moves towards the child, everything radiates out from him. . . . In this way I take into account the essential affective element, the child's interest, which is, by far, the best lever.[35]

The stimuli next come from the close environment and it is about this environment that new questions are asked. They are 'raised by phenomena that occur and objects that appear'.[36] In this way, children perceive the links between themselves and the objects that populate their natural environment (animals, plants, minerals), and their social environment (family, school, town, society). The comparison quickly allows them to identify the vital needs whose pressures they, too, have to face when they feel hunger, cold, fear or the desire to act. The discovery of the world, which each child starts afresh, is organized in accordance with the universal constants of food, shelter, struggle and activity. These 'pivotal ideas' are all the more inescapable because they match up with the great constraints of biological survival, both at the scale of the humblest animal and at that of the proudest cities.

These needs, biological, psychological and social, expand progressively from the specific events that the child experiences to the general laws of life. If the individual ensures his survival by food, protection, defence and work, the species does it by reproduction, adaptation, selection and innate or acquired behaviour. In the case of the human species, work has also given rise to cultural accumulation thanks to the growing mastery of nature, the making of tools (including language), and aptitude for creative innovation.

This information soon forms such a large body of knowledge that the collection of data is no longer occasional. The 'pivotal idea' or 'centre of interest' leads to the creation of short- or long-term projects (rearing animals, planting, hikes, etc.). From the ages of 8 or 9 to 14 or 15, work on each 'pivotal idea' is spread over the whole year, ensuring the gradual acquisition of knowledge. From this stage on the subjects lend themselves to treatment by 'associated ideas'. Any subject presents scientific, economic, geographic, historical, literary and legal aspects that require the introduction of techniques and ideas taken from different branches of knowledge, without ever losing sight of their linkages with each other.

Decroly's teaching method attains a unity that is really phenomenological, leading children to discover the laws that underlie appearances. Even after the age of 15 when the children have reached the stage of adult thought, they retain the habit of linking particular choices that they have decided upon to the larger wholes that give them their full meaning.

From globalization to co-ordination

The globalism inherent in children's thought translates into education in this natural interaction of all aspects of a subject. In primary school, a single teacher can very easily ensure this co-ordination; in secondary school, the different specialist teachers must of necessity ensure it by dialogue and interdisciplinary approaches. Even the traditional names of the courses are dispensed with.

With the youngest children, the globalization of teaching follows quite naturally from life itself, without ever imposing on them so-called preschool activities. The child gives his whole self to his play, to his 'responsibilities' in the classroom, to field trips, to gardening, harvesting or gathering. No screen is interposed between him and the actual density of the objects or phenomena: 'one finds oneself not in the presence of a simple object, but of an already extremely dense whole, whose limits cannot be defined in isolation, because, in the child's perceptions, they are inevitably associated with that whole'.[37]

The first intellectual processes are doubly integrated with 'the globalization function' by the fact that things are global and by the globalism that dominates the child's mental processes:

> His own being is there, wholly, each time that he receives a perceptual sensation from his ego, whether he is hungry or thirsty, tired or hurting, frightened or angry, seeking to play or go outside, jumping, eating, bathing, or going to bed, his whole being is there, not disconnected, in its entirety. The lessons he receives from himself are not serial, following preconceived rational stages. Nevertheless, he finds his way in this apparent disorder and comes to understand himself. His consciousness gradually builds itself. Countless ideas have penetrated the child's consciousness . . . with no prior conscious analysis, without deliberate disassociation.[38]

However, adults substitute, as placidly as can be, their arbitrary order for this chaos: 'They go from the parts to the whole, from the simple to the compound or the complex, a step which is, moreover, often assimilated to that of passing from the concrete to the abstract and from the particular to the general.' So, in adult logic, surface is simpler than volume, a letter than a sentence, the point than the 'round'.

In contrast, what Decroly expected of education was that it would be able to graft the new acquisitions of learning on to personal experiences that were often very rich.

> A child, when he enters school, has developed senses. . . . A child has an observing mind; one only has to keep it alive. A child associates, abstracts, generalizes; one just has to give him the opportunity to associate with higher order elements, to let him abstract and generalize on broader and more numerous data. A child acts, creates, imagines, expresses himself; one just has to give him the materials and the opportunities and he continues to develop his active tendencies.[39]

Observation, association, concrete expression, abstract expression: these sum up the whole of the global method, in its full extent, that an unfortunately restrictive usage has limited to learning how to read and write. If Decroly took global representation as a point of departure, it was in order to train children progressively to develop more and more differentiated faculties. Examination of a 'surprise' in nursery school is a perfect illustration of this process. One of the children puts forward an object concealed in a bag for the group seated in a circle to examine. Each child feels it, sniffs it, feels its weight, presses it and tries to describe the sensations he feels. This 'provoked' attention replaces the mechanical recording of information by active observation, transforming impression into perception, concept and language.

Concrete expression, conscious or not, immediately accompanies the effort of observation. Pleasure or repulsion, fear or desire are translated into movements or mimicry. Talking also takes place, and the adult introduces in a natural manner any new words that are necessary. Through experimentation, the object is submitted to hypotheses followed by systematic exploration of them. They measure it, weigh it, judge its volume. The phase of concrete expression ends with drawings or other representations of any kind, and the abstract expression phase ends with the oral (never written!) acquisition of a very scientific vocabulary (edible, exotic, infusion, instrument, etc.).

But observation and expression do not operate in the present moment alone. The child spontaneously associates the present object with memories of earlier experiences or with anticipatory hypotheses. The activity of association comes into play here. It arises specifically from true abstraction, an operation carried out by the child himself, too often confused with abstraction in the scholarly sense of the term, which consists of using, advisedly, ready-made formal entities. Abstracting is something entirely different; children do it as soon as they distinguish the significant characteristics of a specific object that make it possible to describe it. They develop a logic for themselves, intuitive at first, which will progressively tend to become more rationalized without limiting itself, however, to formal models. The stage of symbols, words and ideas is reached by conscious analytical work on the practical data provided by observation and set by expression, which thus transforms perceptions into representations. From then on, concepts can be used to establish connections, relationships and systematizations.

In moving in this way from specimens to types, from the particular to the general, from element to structure and from the unitary to the serial, the child reproduces exactly the approach of experimental science. On the other hand, premature formalisms and operative displays of pure intelligence inevitably reproduce the old scholastic models. In limiting itself to cognitively oriented goals, education mutilates more than just invention, affectivity and creativity. It removes from intelligence itself the essential support of matter. Thought feeds on the interplay of the concrete and the abstract, each of them equally vital to the understanding of the real by giving it 'the opportunity to be as faithful to the truth as possible'.[40]

Decroly's methodology is thus a priori neither deductive nor inductive: it is intuitive and constructivist, leading each child to mobilize his personal internal resources in order to develop his own knowledge. He himself produces the tools that suit him best and that he will use all his life. In the classroom or at school, each group makes its own educational materials, using the resources of many workshops (work-benches, greenhouses, plots of land, animals, print-shops, kitchens, laboratories, libraries, etc.). Child-workman, child-artisan, child-author, he is the master of his drawings, his notebook, his collections, his documents and his works. He acquires thereby an autonomy that will serve him throughout his education. The education he has received never favoured competitiveness or spectacular performance, but it did encourage self-education. Its advantages are modest but sure: an inclination for and a sense of research, responsibility in personal work, an early grasp of individual note-taking, ability to handle sketches and diagrams and the ability to find and make use of documentation. Continuous assessment obviously replaces examinations. It is based on a detailed appraisal of each child's effort and progress, without numerical grading, averages or ranking. Regular reports replace report cards. They describe the physical, social and intellectual development of each child. Thanks to the detailed comments about his activities, each child learns to know his strengths and weaknesses, and to focus on the fields that most fully develop his skills, desires and fields of choice. Although it may be intense, the effort demanded of him never exceeds his capacities. The direction that it gives to his life will gain from his clear-sightedness and from the confidence that he has acquired in his own abilities.

Reversal of priorities

The logic of this global educational project inevitably leads to the reversal of the traditional order of subjects: 'We give a preponderant place in the timetable to activities that focus on culture in depth; that naturally leaves us less time for surface learning. . . . In today's schools, most of the time is devoted to studying reading, spelling and writing!'[41]

Decroly thus made the school starting dates more flexible. Why did schooling have to begin on the fateful date of 1 September and at the official age of 5, 6 or 7 (depending on the country), without even taking account of a child's real age, since a child born on 1 January might be paired with another born on 31 December of the same year?

Furthermore, the difficulties inherent in learning these strictly formal techniques prevent children from understanding their usefulness, for a longer or shorter time, at the very moment when they should be acquiring a love for school. Finally, they condemn too many children to failure, particularly if they are not skilled in language. 'They are brought together in order to teach them, whether they like it or not, what, precisely? Hieroglyphics that we call numbers and other hieroglyphics that we call letters, that they have to handle hour after hour, whose shapes or sounds they must recognize and reproduce, without seeing any aim, any use, or, most important, any enjoyment in this work'.[42]

Conversely, if there is 'a simple and genuine natural environment, in a lively setting . . . the observation of natural phenomena, animals, plants and various human activities affords an inexhaustible source [of data] that, even while the observations are being made, give rise to problems, the search for the way things work, and finding answers in mental or written form'.[43]

The teacher thus has the task of rationally introducing, at the appropriate time, the techniques and ideas necessary for dealing with the matters that arise out of the children's spontaneous curiosity. Decroly called these tool-subjects (the sacrosanct three R's: reading, writing, arithmetic) 'secondary', because he limited them to their specific function of instruments of knowledge, but they were not on that account negligible. He attached too much importance to tools to underestimate their usefulness. But he profoundly modified the traditional way in which these subjects were learned, so that children would become interested in mastering them once they had come to understand fully the services that arithmetic, reading and writing could render them.

Measurement

The abundance of information collected on the ground, whether casually or not, very soon leads to 'measurement', a term that Decroly defines as 'the act of measuring', by which the child gets to the stage of quantifying phenomena.

> When first teaching arithmetic, an effort must be made to take advantage all the time of the role of comparison, that is, to stress the relationships between new objects that are present, and familiar, known objects, and to encourage the child to note the identity, resemblance or difference, and to do it in an ever more precise way. Comparison is then closely linked with exercises on continuous and discontinuous quantities, which lead on to numerical operations. But the goal, which must not be lost from sight, is not the acquisition of an operational process, an objective that is secondary though useful, but the developing of logical judgement assisted by measurement methods that permit more accurate results to be achieved.[44]

To encourage these transitions from qualitative impressions to quantitative measurement, Decroly uses familiar terms linked to perceptions: 'a lot', 'a little', 'less', 'too much', 'enough', 'as much as', 'several', 'some', etc. By successive approximations, children learn to verify, more and more successfully, portions of space and time. They stop their random enumeration using counting rhymes and start using numbers to express precise content. They arrive at a measurement of space by using natural standards such as handspans, wingspans, people's heights or strides, agreed upon by the group. Following the first countings, which are simply enumerative, there come more complex operations, so that it is necessary to have recourse to different units of measurement, for example three steps plus a stride. The properties of space are clarified by games, for example, classification by length, width, increasing or decreasing angles; geometric figures are obtained by making diagrams of natural objects. Assessment of volumes and weights proceeds from experimentation; countless possibilities keep emerging, supported by the making of elementary measuring instruments.

The transition to conventional units of measurement again begins through comparison, as discovered at the market, the farm or the bakery; but they retain the habit, as craftsmen do, of using their bodies for rapid measurement.

The transition to operations comes from communal life. It is always necessary to be 'adding', 'subtracting', 'sharing' or 'distributing'. These operations remain mental as long as possible because too rapid an access to written arithmetic uselessly multiplies algorithms, and leads to forgetting the fundamental unity of each type of arithmetic (for example, division and fractions).

Measurement of time requires the same prudent and progressive familiarization with abstraction. It begins with calendars on which the group notes, day by day, the meteorological data and the successive daily, monthly and seasonal activities (at school and at home). The first measurements are based on the length of time experienced, without reference to the system of hours, and conventional measurements are introduced afterwards. The time perspective takes on even more depth as children are trained to distinguish between 'before', 'after', 'during', 'a long time', 'sometimes', etc., and to immerse themselves in the past of their family and their region.

Finally, practical mathematics activities are also based on values, whose general introduction is based on the refinement of comparative terms such as 'good', 'better', 'worse', 'the worst', 'big', 'medium', 'lower', 'higher', etc., which necessarily follow quite naturally in the phase of association of ideas. Awareness of costs arises out of the management of daily affairs, such as preparing an excursion, working out the cost of a picnic, comparing goods in a store, building, gardening and composing a school diary.

To the extent that mathematics is a universal tool more and more necessary for the basic approach to any science or technology, the pragmatism of this practical initiation will infuse all the education that follows, in which the solution of real problems will remain predominant, even if very abstract techniques and ideas require a detour via logic and symbolism that is far from any practical reality.

Reading and writing

Decroly is often referred to (incorrectly) as the inventor of the so-called 'global' method of reading and writing. It would be more correct to see him as the promoter of the 'functional method', but that still would not do justice to his radicalism in daring to subordinate graphic learning to sensory, motor, physical, scientific and artistic education. 'Learning to read . . . does not tell anyone what should be read, what books are useful and what are not, what books are beneficial and what are harmful'.[45]

Decroly therefore turned academic priorities upside down. Activities of observation, association and concrete expression largely dominated the timetable and were expressed much more in speech than in writing. The children spoke naturally, spontaneously and freely. The richness, colour and verve of familiar speech were a much more necessary educational achievement than a pedantic and often awkward purism.

The learning of reading and writing was carried out only with texts that were directly related to immediate practical experience, and always accompanied by figurative supporting material (drawings, models, various objects). The first reading 'books' were the exercise books, the texts that they printed themselves, the notice boards that they put up or the messages that circulated in the group.

The 'ideovisual' process of reading and writing, long tested by Decroly and his colleagues, and often referred to as 'global' because it is necessarily based on complete sentences with a clear meaning, comes under the heading of 'intelligent reading', which subordinates the written word to the idea and the code to information. It is based on silent reading and deliberately avoids spelling words out. Questions are asked about the meaning to check that texts have been understood and to stress the function assumed by each word. The graphic elements are examined right from the start, once again bringing observation and association into play. In using increasingly precise criteria, the children, rather than identifying sounds, identify the limits of each word, then syllables and then graphemes. As soon as they have understood the functioning of the system, they are capable of reading or writing anything, by decomposing or recombining the graphic elements. For some children, a few weeks are enough, while others take much longer (a year and a half, two years or sometimes even more). Misunderstanding of the individual rhythms of maturing tragically comprises the educational future of children who only require time to arrive. There are many other activities, more substantial and more favourable for developing understanding, even for early readers. In fact, the majority master the rules of spelling and syntax quite easily (at any age!), thanks to autocorrective reflexes, encouraged by constant use of the tools. Reference to dictionaries and grammars is made systematic from childhood on, and is allowed at any time, even and most of all during essay examinations, tests of textual analysis and even of spelling!

Although the ideovisual process is based on silent reading, in no way does it inhibit the re-reading aloud of passages that are already understood, with the expressive musical and theatrical tones of recitation. The exchanges of messages, conversation and the consultation of texts of topical interest also require use of speech. The search for documentation very soon introduces books, newspapers and correspondence, as soon as the child knows how to read. Deference to individual literary sensibilities maintains freedom of choice in reading matter and in individual compositions. Their variety enriches textual analysis and promotes ever more subtle reflection, imagination and sensitivity. Literary education is not limited to a single national heritage. Broadly comparative, it is open to ideas and literary works from the whole world.

School is first of all a centre of communication where a very considerable amount of dialogue takes place. From the very first days of the Ermitage, all the students took part regularly in collective dramatic productions, in displaying posters on the walls and in different kinds of meetings. The *School Newspaper*, established in 1909 by a group of children with no adult help, composed by them in their own print-shop, is a particularly good illustration of this social role. These activities, as aids for information or recreation, were not deliberately devised as educational and were not corrected as academic subjects would be except as was necessary for understanding.

In-depth culture

It follows from the logic of Decroly's plan that persistent difficulties should never compromise an individual's academic future. The children themselves overcome weaknesses at the cost of increased vigilance, sometimes even to the point of perfectionism, but thanks also to the abundant work they produce. They are above all rewarded by reinforcement of their positive qualities in other fields, thanks to a method of weighting that systematically rejects so-called exclusionary grading and does not accord preferential status to any subjects.

From the ages of 3 to 18, Decroly's system obviously diversifies continuously. Globalization and then the interdisciplinary method in no way prevent increasing specialization in other subjects, according to the directions that are chosen. However, the natural rhythm of building up knowledge is never sacrificed to the impossible concern for exhaustiveness that characterizes traditional curricula. Furthermore, learning does not stop at 18, 20 or 25 years of age. All teaching, from primary to higher education, is putting in place stones to which further knowledge can be cemented throughout the whole of a person's life.

The role of comparison is broadened here to include the ability to transfer and extrapolate. In a leisurely and complete treatment of all aspects of a subject, the child creates a 'tool-box' for himself. He will take from it what is needed to deal with new questions. Day after day, his personal documentation is enriched by prospectuses, postcards and articles. He knows where to find reference books, newspapers and magazines and useful addresses. He has all the more confidence in his own abilities for invention, discovery and personal work because there was no adult opposite him, gratified at having infused knowledge into the child. Because it is open to contemporary life, the school is given more to research than to the transmission of knowledge, and to the construction of science than to doctrine.

Decroly's era was particularly fertile in innovation in all fields. It was clear by then that all knowledge advances from the known only to integrate the unknown. A worthwhile culture had to be modern, but its very modernity cast a new light on the past 'by preparing [the child] to understand the great laws of life and nature, and putting within his reach the scientific and technical riches accumulated by preceding generations.'[46] In distinguishing between 'surface learning' and 'culture in depth', Decroly not only made technique subordinate to content but also conceived of teaching as an 'introduction to the intellectual and moral heritage of humanity, which is like a summary of man's experience and can truly serve as a means of attaining general culture'.[47]

Conclusion

Education still has a long way to go in order to deal with the emergencies that can hardly be said to differ much from those that Decroly faced – educational failure, children who suffer, a bookish culture, social condescension and the obsession with productivity. Has education stopped any of these occurring or being maintained? It is true that Decroly directly inspired many schools in South America, Florida, Spain, Paris and, of course, Belgium. Thousands of educators have visited and still visit the Ermitage, which also receives many trainees. The movement for the emancipation of school has not ceased. Freinet, Illich and Freire have taken over from Dewey, Montessori and Decroly. 'But introducing innovations in education and into the curriculum is no easy job! The mechanism that has been developed slowly over the centuries is complex and does not lend itself readily to major reconstruction. Most of those who live with and from the system thus consider it better not to meddle with it. In any case, they are not badly off inside it and do not notice the cracks that portend its forthcoming decline and collapse.'[48]

By a sad paradox, the failure of his work, so bold yet so simple, is that it still seems to be ahead of its time!

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A complete bibliography of works by and about Decroly can be obtained from the Centre d'Études Decrolyennes, 15 avenue Montana, B-1180, Brussels (Belgium).

JOHN DEWEY

(1859–1952)

Robert B. Westbrook

John Dewey was the most significant American philosopher of the first half of the twentieth century. His career spanned three generations, and his voice could be heard in the midst of cultural controversies in the United States (and abroad) from the 1890s until his death in 1952 at the age of nearly 93. Over the course of this long career, Dewey developed a philosophy that called for the unity of theory and practice and exemplified this unity in his own work as an intellectual and political activist. His thinking was grounded in the moral conviction that 'democracy is freedom', and he devoted his life to the construction of a persuasive philosophical argument for this conviction and to the pursuit of an activism that would secure its practical realization.[1] Nowhere was Dewey's commitment to democracy and to an integration of theory and practice more evident than in his career as an educational reformer.

As he began his duties as a new member of the faculty of the University of Chicago in the autumn of 1894, Dewey wrote to his wife Alice: 'I sometimes think I will drop teaching philosophy directly, and teach it via *pedagogy*'.[2] Although he never actually stopped teaching philosophy directly, Dewey's philosophical views probably reached more readers via books aimed at educators, such as *The School and Society* (1899), *How We Think* (1910), *Democracy and Education* (1916) and *Experience and Education* (1938), than through those directed principally to his fellow philosophers, and, as he said, *Democracy and Education* was the closest thing he ever wrote to a summary of his 'entire philosophical position'.[3] It was no accident, he observed, that like himself many great philosophers had taken a keen interest in the problems of education because there was 'an intimate and vital relation between the need for philosophy and the necessity for education.' If philosophy was wisdom – a vision of 'the better kind of life to be led' – then consciously guided education was the praxis of the philosopher. 'If philosophy is to be other than an idle and unverifiable speculation, it must be animated by the conviction that its theory of experience is a hypothesis that is realized only as experience is actually shaped in accord with it. And this realization demands that man's dispositions be made such as to desire and strive for that kind of experience.' This shaping of dispositions might take place through a variety of agencies, but in modern societies the school was among the most crucial, and as such it was an indispensable arena for the shaping of a philosophy into a 'living fact'.[4]

Dewey's efforts to shape his own philosophy into living fact in the schools were surrounded by controversy, and to this day he remains a touchstone in debates about the shortcomings of American education: an indispensable villain for 'back-to-basics' conservatives and an inspiring forefather for 'child-centred' reformers. Both sides in these debates tend to misread Dewey's work; to overestimate his influence; and to underplay the democratic ideals that were at the heart of his pedagogy.

The making of an educator

John Dewey was born in Burlington, Vermont, in 1859, the son of a storekeeper. He graduated from the University of Vermont in 1879, and after a brief stint as a schoolteacher in Pennsylvania and Vermont, he enrolled as a graduate student in the department of philosophy at Johns Hopkins University, which had pioneered graduate education on the German model in the United States. There he came under the influence of George S. Morris, a neo-Hegelian idealist. Receiving his Ph.D. in 1884 with a dissertation on 'Kant's Psychology', Dewey followed Morris to the University of Michigan, and assumed leadership of the philosophy department there in 1889.

While at Michigan, Dewey met his wife, Alice Chipman, who was his student. Alice came to college after several years of teaching in Michigan schools, and she more than anyone else was responsible for the practical turn that Dewey's interests took in the late 1880s. Dewey credited her with putting 'guts and stuffing' into his work, and she had a significant influence on the shaping of his pedagogical ideas.[5] Following his marriage, Dewey began to take an active interest in public education, and he was a founding member and officer of the Michigan Schoolmasters' Club, which fostered co-operation between high-school and college teachers in the state. When he was lured away from Michigan to the newly founded University of Chicago by President William Rainey Harper, he insisted that his appointment include leadership of a new department of pedagogy and pressed successfully for the creation of a 'laboratory school' in which his ideas might be tested. It was in the decade (1894–1904) he spent at Chicago that Dewey worked out the fundamental principles of his philosophy of education and began to envision the sort of schools these principles required.

Pragmatism and pedagogy

Over the course of the 1890s Dewey steadily moved away from absolute idealism toward the pragmatism and naturalism of his mature philosophy. Building on a functional psychology that owed much to Darwinian evolutionary biology and to the thinking of his fellow pragmatist, William James, he began to develop a theory of knowledge that contested the dualisms of mind and world, thought and action, and which had marked Western philosophy since the seventeenth century. Thought, he argued, was not a congeries of sense impressions or an artefact of a thing called 'consciousness', let alone a manifestation of an Absolute Mind, but a mediating, instrumental function that had evolved in order to serve the interests of human survival and welfare.

This theory of knowledge emphasized the 'necessity of testing thought by action if thought was to pass over into knowledge', and Dewey acknowledged that this proviso extended to the theory itself.[6] His work in education was intended in part to explore the implications of his instrumentalism for pedagogy and to put it to an experimental test.

Dewey was convinced that many of the problems of prevailing educational practice grew out of its foundations in the faulty dualistic epistemology he was attacking in his writings on psychology and logic in the 1890s, and he set out to design a pedagogy that was grounded in his own functionalism and instrumentalism. Having spent a good deal of time observing the growth of his own children, Dewey was certain that there was no difference in the dynamics of the experience of children and adults. Both were active beings who learned by confronting the problematic situations that arose in the course of the activities that engaged their interests. Thinking for each was an instrument for solving the problems of experience, and knowledge was the accumulation of wisdom that such problem-solving generated. Unfortunately, the theoretical insights of this functionalism had had little impact on pedagogy, and the identity between the experience of children and that of adults was ignored in the schools.

Children, Dewey contended, did not arrive at school as passive blank slates upon which teachers might write the lessons of civilization. By the time the child entered the classroom, he was 'already intensely active, and the question of education is the question of taking hold of his activities, of giving them direction'.[7] When children began their formal education they brought with them four basic 'native impulses' – the 'impulse to communicate, to construct, to inquire, and to express in finer form' – which were the 'natural resources, the uninvested capital, upon the exercise of which depends the active growth of the child'.[8] Children also brought with them interests and activities from the homes and neighbourhoods in which they lived, and it was the task of the teacher to make use of this 'raw material' by guiding the activities of the child toward 'valuable results'.[9]

This argument placed Dewey at odds with both the proponents of a traditional, 'curriculum-centred' education and romantic reformers who advocated a 'child-centred' pedagogy. The traditionalists, led by William Torrey Harris, the United States Commissioner of Education, favoured disciplined, step-by-step instruction in the accumulated wisdom of civilization. It was the subject-matter that furnished the end and determined the methods of education. The child was expected simply 'to receive, to accept. His part is fulfilled when he is ductile and docile.'[10] On the other hand, the advocates of child-centred education, like G. Stanley Hall and prominent members of the National Herbart Society, argued that instruction in subject-matter should be subordinated to the natural, uninhibited growth of the child. For them the expression of the child's native impulses was 'the startingpoint, the center, the end'.[11] These schools of thought waged a fierce battle with one another in the 1890s. Traditionalists defended the hard-won knowledge of centuries of intellectual struggle and viewed child-centred education as a chaotic, anarchistic surrender of adult authority, while romantics celebrated spontaneity and change, and charged their opponents with suppressing the individuality of children by means of a boring, routinized, despotic pedagogy.

To Dewey, this debate was evidence of yet another pernicious dualism, against which he set himself. The dispute could be resolved, he said, if both sides would 'get rid of the prejudicial notion that there is some gap in kind (as distinct from degree) between the child's experience and the various forms of subject-matter that make up the course of study. From the side of the child, it is a question of seeing how his experience already contains within itself elements – facts and truths – of just the same sort as those entering into the formulated study; and, what is of more importance, of how it contains within itself the attitudes, the motives, and the interests which have operated in developing and organizing the subject-matter to the plane which it now occupies. From the side of the studies, it is a question of interpreting them as outgrowths of forces operating in the child's life, and of discovering the steps that intervene between the child's present experience and their richer maturity'.[12]

Dewey's critique of the traditionalists for their failure to connect the subject-matter of the curriculum to the interests and activities of the child is well known. His attack on the advocates of child-centred education for their failure to connect the interests and activities of the child to the subject-matter of the curriculum is, however, often overlooked. Some critics of Dewey's educational theory have confused his position with that of the romantics, but he clearly differentiated his pedagogy from theirs. The danger of romanticism, he said, was that it regarded 'the child's present powers and interests as something finally significant in themselves'.[13] But it would be wrong to cultivate the purposes and interests of children 'just as they stand'. Effective education required that these purposes and interests be used by the teacher to guide the child toward their culmination in the subject-matter of science and history and art. 'Interests in reality are but attitudes toward possible experiences; they are not achievements; their worth is in the leverage they afford, not in the accomplishment they represent.'[14] The subject-matter of the curriculum was the embodied experience of the human race, and, as such, it was that toward which the immature experience of the child pointed. 'The facts and truths that enter into the child's present experience, and those contained in the subject-matter of studies, are the initial and final terms of one reality', Dewey concluded. 'To oppose one to the other is to oppose the infancy and maturity of the same growing life; it is to set the moving tendency and the final result of the same process over against each other; it is to hold that the nature and the destiny of the child war with each other.'[15]

Deweyan pedagogy called upon teachers to perform the extremely difficult task of 'reinstating into experience' the subject-matter of the curriculum.[16] This subject-matter, like all human knowledge, was the product of man's efforts to solve the problems that confronted him in experience, but, as a formal body of knowledge, it had been abstracted from the problematic situations that originally occasioned its development. Traditionalists argued that this knowledge should simply be imposed on the child in a sequence of steps determined by the logic of this abstracted body of truth, but, presented in this fashion, the material was of little interest to children and, moreover, failed to instruct them in the methods of experimental inquiry that had produced this knowledge in the first place. As a consequence, teachers had to resort to an appeal to interests unrelated to the subject-matter, such as the child's fear of pain and humiliation, in order to produce the appearance of learning. Rather than impose the subject-matter on children in this fashion (or simply leave them to their own devices as romantics advised), Dewey called upon teachers to 'psychologize' the curriculum by constructing an environment in which the present activities of the child would be confronted with problematic situations in which the knowledge and skills of science, history and art would be required in order to resolve these difficulties. The curriculum was, in effect, saying to the teacher 'such and such are the capacities, the fulfillments, in truth and beauty and behavior, open to these children. Now see to it that day by day the conditions are such that *their own activities* move inevitably in this direction, toward such culmination of themselves.'[17]

If teachers were to teach in this fashion, to direct a child's development by indirection, they would, Dewey acknowledged, have to be highly skilled professionals, thoroughly knowledgeable in the subject-matter they were teaching, trained in child psychology, and skilled in the techniques of providing the stimulus necessary to make the subject-matter part of a child's growing experience. As two teachers who worked with Dewey remarked, such a teacher had to be capable of seeing the world as both a child and an adult saw it. 'Like Alice, she must step with her children behind the looking-glass and in this imaginative lens she must see all things with their eyes and limited by their experience; but, in time of need, she must be able to recover her trained vision and from the realistic point of view of an adult supply the guide posts of knowledge and the skills of method.'[18] Dewey admitted that most teachers did not possess the knowledge and skills necessary to teach in this fashion, but he contended that they could learn to do so.

Democracy and education

The shaping of children's character, the moral and political agenda of schooling, is sometimes termed the 'hidden curriculum', but, in Dewey's case, this aspect of his educational theory and practice was no less explicit, albeit a good deal more radical, than his other curricular aims. Dewey was not reluctant to assert that 'the formation of a certain character' was 'the only genuine basis of right living' nor to identify 'right living' with democratic practices.[19]

Individuals, Dewey argued, achieved self-realization by utilizing their peculiar talents to contribute to the well-being of their community, and hence the critical task of education in a democratic society was to help children develop the character – the habits and virtues – that would enable them to achieve self-realization in this fashion. On the whole, he believed, American schools were failing to discharge this responsibility. Most schools employed highly 'individualistic' methods which called upon all the students in a classroom to read the same books simultaneously and recite the same lessons. In these conditions the social impulses of the child atrophied, and the teacher was unable to take advantage of the child's 'natural desire to give out, to do, and that means to serve'.[20] The social spirit was replaced with 'positively individualistic motives and standards' such as fear, emulation, rivalry, and judgements of superiority and inferiority, and, as a consequence, 'the weaker gradually lose their sense of capacity and accept a position of continuous and persistent inferiority', while 'the stronger grow to glory, not in their strength, but in the fact that they are stronger'.[21] If the school was to foster the social spirit in children and develop democratic character, Dewey argued, it had itself to be organized as a co-operative community. In order to educate for democracy the school had to become 'an institution in which the child is, for the time, to live, to be a member of a community life in which he feels that he participates, and to which he contributes'.[22]

Creating the conditions in the classroom for the development of democratic character was no easy task, especially since teachers could not impose such character on students but had instead to create a social environment in which children took it upon themselves to assume the responsibilities of a democratic moral life. Such a life, Dewey noted, 'is lived only as the individual appreciated for himself the ends for which he is working, and does his work in a personal spirit of interest and devotion to these ends'.[23] Dewey realized he was placing heavy demands on teachers, and for this reason, when describing their social role and significance in the late 1890s, he lapsed into the language of the social gospel which he had otherwise abandoned, calling the teacher 'the usherer in of the true kingdom of God'.[24]

As this testament suggests, Dewey's educational theory was far less child-centred and more teacher-centred than is often supposed. His confidence that children would develop a democratic character in the schools he envisioned was rooted less in a faith in the 'spontaneous and crude capacities of the child' than in the ability of teachers to create an environment in the classroom in which they possessed the means to 'mediate' these capacities 'over into habits of social intelligence and responsiveness'.[25]

Dewey's faith in teachers also reflected his belief in the 1890s that 'education is the fundamental method of social progress and reform'.[26] There was a certain logic to this belief. In so far as schools played an important part in the shaping of the character of a society's children, they could, if they were designed to do so, fundamentally transform that society. The school provided a relatively controlled environment in which the conditions of self-development could effectively shape its course. Indeed, if teachers did their job well, there would hardly be need of any other sort of reform. A democratic, co-operative commonwealth could emerge from the classroom.

The difficulty with this belief was that most schools were designed not to transform societies but to reproduce them. As Dewey acknowledged, 'the school system has always been a function of the prevailing type of organization of social life'.[27] The beliefs about schools and teachers that he outlined in his pedagogic creed were thus less beliefs about what was than about what might be. If schools were to be made agencies of social reform rather than agencies of social reproduction, they would themselves have to be thoroughly reconstructed, and this was Dewey's most ambitious aim as an educational reformer: to transform American schools into instruments for the radical democratization of American society.

The Dewey School

'The school', Dewey declared in 1896, 'is the one form of social life which is abstracted and under control – which is directly experimental, and if philosophy is ever to be an experimental science, the construction of a school is its starting point'.[28] Dewey arrived at Chicago with a pretty good idea of the sort of 'laboratory school' he himself wanted to start. He told his wife in 1894:

> There is an image of a school growing up in my mind all the time; a school where some actual and literal constructive activity shall be the centre and source of the whole thing, and from which the work should be always growing out in two directions – one the social bearings of that constructive industry, the other the contact with nature which supplies it with its materials. I can see, theoretically, how the carpentry, etc., in building a model house shall be the centre of a social training on the one side and a scientific on the other, all held within the grasp of a positive concrete physical habit of eye and hand.[29]

Dewey proposed to university officials a school that would keep 'theoretical work in touch with the demands of practice' as the most essential component of a department of pedagogy – 'the nerve of the whole scheme' – and he received the support of Harper, who was himself an important activist in the campaign for educational reform in Chicago.[30] In January 1896, the Laboratory School of the University of Chicago opened its doors. The school began with sixteen children and two teachers, but by 1903 it was providing instruction to 140 students and was staffed by twenty-three teachers and ten graduate assistants. Most of the students were from professional families, many of them the children of Dewey's colleagues. The enterprise quickly became known as the Dewey School, for the hypotheses that were tested in this laboratory were strictly those of Dewey's functional psychology and democratic ethics.

At the centre of the curriculum of the Dewey School was what Dewey termed the 'occupation', that is 'a mode of activity on the part of the child which reproduces, or runs parallel to, some of work carried on in social life'.[31] Divided into eleven age-groups, the students pursued a variety of projects centred on particular historical or contemporary occupations. The youngest children in the school, who were 4 and 5 years old, engaged in activities familiar to them from their homes and neighbourhood: cooking, sewing and carpentry. The 6-year-olds built a farm out of blocks, planted wheat and cotton, and processed and transported their crop to market. The 7-year-olds studied prehistoric life in caves of their own devising while their 8-year-old neighbours focused their attention on the work of the sea-faring Phoenicians, on Robinson Crusoe and adventurers, like Marco Polo, Magellan and Columbus. Local history and geography occupied the attention of the 9-year-olds, while those aged 10 studied colonial history, constructing a replica of a room in an early American house. The work of the older groups of children was less strictly focused on particular historical periods (though history remained an important part of their studies) and centred on scientific experiments in anatomy, electromagnetism, political economy and photography. The search of the debating club formed by the 13-year-old students for a place to meet resulted in the building of a substantial clubhouse, which enlisted children of all ages in a co-operative project that was for many the emblematic moment in the school's history.

Because occupational activities pointed on the one hand toward the scientific study of the materials and processes involved in their practice and on the other toward their role in society and culture, the thematic focus on occupations provided the occasion not only for manual training and historical inquiry but also for work in mathematics, geology, physics, biology, chemistry, reading, art, music and languages. In the Laboratory School, Dewey reported, 'the child comes to school to *do*; to cook, to sew, to work with wood and tools in simple constructive acts; within and about these acts cluster the studies – writing, reading, arithmetic, etc.'[32] Skills such as reading were developed when children came to recognize their usefulness in solving the problems that confronted them in their occupational activities. 'If a child realizes the motive for acquiring a skill', Dewey argued, 'he is helped in large measure to secure the skill. Books and the ability to read are, therefore, regarded strictly as tools.'[33]

Katherine Camp Mayhew and Anna Camp Edwards, who taught in the Laboratory School, later provided a full account of this remarkable educational experiment filled with evidence of the considerable success that Dewey and his colleagues achieved in translating his theories into practice, evidence supported by the testimony of less-interested observers as well. Here, one example will have to suffice. The 6-year-old students in the school, building on the experiences with home activities they had had in kindergarten, concentrated their work on 'occupations serving the home'. They built a model farm on the sand-table in their classroom and in the schoolyard they planted a crop of winter wheat. As was the case with most constructive activities in the school, the building of the model farm provided an occasion for learning some mathematics:

> When their sand-table farm had to be divided into several fields for wheat, corn, oats, and also for the house and the barn, the children used a one-foot ruler as a unit of measurement and came to understand what was meant by 'fourths and halves' – the divisions made, though not accurate, were near enough to allow them to mark off their farm. As they became more familiar with the ruler and learned the half-foot, and the quarter-foot and inch, finer work was naturally expected of them and obtained. . . .When building the farm-house, four posts were needed for the corners and six or seven slats, all of the same height. In measuring the latter, the children frequently forgot to keep the left-hand edge of the ruler on the left-hand side of the slat, so the measurements had to be repeated two or three times before they were correct. What they did to one side of the house, they also did to the other and naturally worked more rapidly and more accurately as the work was repeated.[34]

In instances such as this, one can see not only how the child's interest in a particular activity of his/her own (building a model farm) served as the foundation for instruction in a body of subject-matter (skills in measurement and the mathematics of fractions) but also how this method introduced children to the methods of experimental problem-solving in which mistakes were an important part of learning. Providing children with 'first-hand experience' with problematic situations largely of their own making was the key to Dewey's pedagogy, for he believed that 'until the emphasis changes to the conditions which make it necessary for the child to take an active share in the personal building up of his own problems and to participate in methods of solving them (even at the expense of experimentation and error) the mind is not really freed.'[35]

It is difficult to read through descriptions and accounts of the Laboratory School and understand how Dewey has come to be seen by some critics as a proponent of 'aimless' progressive education. He explicitly stated his curricular goals, and they were readily apparent in the classroom practice of the teachers with whom he worked. Dewey valued mankind's accumulated knowledge as much as the most hidebound traditionalist, and he intended that the children in his elementary school would be introduced to the riches of science, history and the arts. He also wanted them to learn to read, to write, to count, to think scientifically, and to express themselves in a refined manner. As far as subject-matter was concerned, Dewey's goals for education were rather conventional, only his methods were innovative and radical, but, conventional though they may have been, these goals were clearly expressed.

Important as the Laboratory School was as a testing ground for Dewey's functional psychology and pragmatism, it was even more important as an expression of his ethics and democratic theory. 'The social phase of education', he said, 'was put first'.[36] The Dewey School was above all an experiment in education for democracy.

By all available accounts, Dewey was fairly successful in creating a democratic community in the Laboratory School. Children shared in the planning of their projects, and the execution of these projects was marked by a co-operative division of labour in which leadership roles were frequently rotated. Moreover, democratic community was fostered not only among the students in the school but also among the adults who worked there. Dewey was highly critical of the failure of schools to allow teachers to participate in the decisions affecting the conduct of public education. He was particularly disturbed by reformers who wrested control of the schools from corrupt politicians only to invest school superintendents with enormous, autocratic power. This criticism reflected Dewey's commitment to extending democracy beyond the polity to the workplace. 'What does democracy mean', he asked, 'save that the individual is to have a share in determining the conditions and the aims of his own work; and that, upon the whole, through the free and mutual harmonizing of different individuals, the work of the world is better done than when planned, arranged, and directed by a few, no matter how wise or of how good intent that few?'[37] In the Laboratory School Dewey tried to implement this sort of workplace democracy. The teachers' work was organized much like that of the children. Teachers met weekly to discuss and plan their work and, though no doubt constrained in their criticism by Dewey's commanding presence, they played an active role in shaping the school curriculum.

Dewey did not really have much of a strategy for making American schools at large into institutions working on behalf of radical democracy. Although he neither intended nor expected that the methods of the Laboratory School would be strictly reproduced elsewhere, he did hope that his school would serve as a source of inspiration for those seeking to transform public education as well as a training ground and research centre for reform-minded teachers and specialists. He tended in this to underestimate the degree to which the success of the Dewey School was attributable to its insulation from the conflicts, divisions and inequities besetting the larger society, an insulation difficult to replicate. It was, after all, a small school comprised of the children of middle-class professionals and staffed by well-trained, dedicated teachers with access to the intellectuals of one of the nation's great universities.

If Dewey did not have a plan for establishing the schools as powerful adversarial institutions in the heart of American culture, he did have a clear vision of what he thought the schools in a thoroughly democratic society should look like, and he attempted, with some considerable success, to embody that vision in the Laboratory School. This school was clearly not designed for social reproduction. Although Dewey sought to connect the school to the larger society by putting occupations at the heart of his curriculum, he self-consciously purified these occupations of one of their most essential features as they were conducted in American society by removing them from the social relations of capitalist production and putting them in a co-operative context in which they would have been virtually unrecognizable to those who performed them in the larger society. In the school, he said, 'the typical occupations followed are freed from all economic stress. The aim is not the economic value of the products, but the development of social power and insight.'[38] Freed from 'narrow utilities', occupations in the school were organized so that 'method, purpose, understanding shall exist in the consciousness of the one who does the work, that his activity shall have meaning to himself.'[39] The children's work was unalienated labour in which the separation of hand and brain that was proceeding apace in the nation's factories and offices was nowhere in evidence. Dewey sometimes referred to the Laboratory School as an 'embryonic society', but it was far from an embryo of the society that lay outside its walls.[40] It did not promise the reproduction of industrial America but rather prefigured its radical reconstruction.

The lifetime of Dewey's prefigurative community was very brief and, ironically, it was a struggle over workers' control of the Laboratory School that led to its demise. Dewey and his teachers, after all, did not own their workshop; the University of Chicago did. And in 1904 President Harper sided with disgruntled teachers and administrators from the school founded by Colonel Francis Parker (which had been merged with the Dewey School in 1903) who resented incorporation into the 'Mr and Mrs Dewey School' and feared that Alice Dewey in particular would see no need to retain their services. When Harper fired Alice, Dewey resigned and almost immediately accepted a position at Columbia University, where he remained for the rest of his long career. The loss of the Laboratory School left it to others to interpret, apply and often distort Dewey's pedagogical ideas and deprived him of an extraordinary, concrete manifestation of his democratic ideals.

Progressive reform

Although he never again had his own school, Dewey remained an active critic of American education for the remainder of his career, and he also ventured abroad to lend his voice to reform efforts in Japan, Mexico, Turkey, the USSR and China – where he had perhaps the greatest impact. Arriving in China in 1919 on the eve of the emergence of the May Fourth Movement, Dewey was lionized by many Chinese intellectuals who, as one historian has said, 'closely associated his thought with the very definition of modernity'.[41]

Dewey's democratic convictions also involved him in disputes with a wide range of 'progressive' educators, including some who regarded themselves as faithful Deweyans. He attacked 'administrative progressives' who favoured vocational education programmes that, in his opinion, were a form of class education making the schools a more efficient agency for the reproduction of an undemocratic society. 'The kind of vocational education in which I am interested', he said, 'is not one which will adapt workers to the existing industrial regime; I am not sufficiently in love with the regime for that.' Rather Americans should strive for 'a kind of vocational education which will first alter the existing industrial system, and ultimately transform it'.[42] Dewey also continued to distance himself from romantic, child-centred progressives, and in the 1920s he was moved in an uncharacteristic moment of public bluntness to label their method of simply allowing children to follow their untutored inclinations as 'really stupid'.[43] Finally, he even took issue in the 1930s with the radical 'social reconstructionists', whose thinking was perhaps closest to his own, when they proposed programmes of 'counter-indoctrination' to contest a curriculum designed to legitimate an oppressive social order. For radicals to engage in counter-propaganda, he argued, was to demonstrate a lack of confidence in the power of the convictions they held and the means by which they themselves had presumably arrived at these convictions. They had not been indoctrinated into the conclusions they had reached about the shortcomings of capitalist society but had reached these conclusions by means of 'an intelligent study of historical and existing forces and conditions'.[44] Radical democrats had to credit their students with the capability to reach the same conclusions by the same means, not only because this was more democratic but also because these conclusions should be subjected to the continuous scrutiny that such education would provide. 'If the method of intelligence has worked in our own case', he asked, 'how can we assume that the method will not work with our students, and that it will not with them generate ardor and practical energy?'[45]

Dewey's criticisms of other reformers were usually politely received, but changed few minds. Few followed the 'way out of educational confusion' that he proposed. For most educators, it posed too great a threat to traditional methods and subject-matter. At the same time, its social implications were too radical for advocates of scientific efficiency, and not radical enough for some proponents of social reconstruction. And, though it called for a revolutionary curriculum that would build on the impulses and interests of children, it was too respectful of tradition and subject-matter to satisfy romantics. Thus, as the historian Herbert

Kliebard has said, 'his intellectual stature, his international reputation and his many honors notwithstanding, Dewey did not have enough of a true following in the world of educational practice to make his impact felt'.[46]

Had Dewey continued to believe that the teacher was 'the usherer in of the true kingdom of God', he might have been more distressed than he was that his pedagogical arguments so often fell on deaf ears. But after the First World War, the schools were no longer the focus of his activism. This reflected a less naïve estimate of the place of the school in social reconstruction, a substantial displacement of the classroom from the centre of his reform vision. What had once been to his mind the sole critical means for the democratization of American life became one of a number of critical means, and one clearly secondary to more overtly political institutions for public education. Dewey now more openly acknowledged that schools were inextricably tied to prevailing structures of power as an agency essential to the reproduction of the class society of industrial capitalism and therefore extremely difficult to transform into an agency of democratic reform. Efforts to fashion them into the means to a more democratic society repeatedly ran afoul of interests anxious to preserve the existing social order. The defects of schools mirrored and sustained the defects of the larger society and these defects could not be remedied apart from a struggle for democracy throughout that larger society. Schools would take part in the democratic social change only 'as they ally themselves with this or that movement of existing social forces'.[47] They could not be viewed, as Dewey had once been prone to see them, as the vehicle for an evasion of politics.

Dewey's legacy

Dewey's philosophy of education came under heavy posthumous attack in the 1950s from the opponents of progressive education, who took him to task for virtually everything that was wrong with the American public school system. Though his actual impact upon American schools was quite limited and conservative critics erred in confusing him with the progressives he had himself attacked, Dewey proved a convenient symbol of opprobrium for 'fundamentalists' worried about the decline of intellectual standards in the schools and the threat this posed to a nation involved in a Cold War with Communism. Following the launching of the Russian *Sputnik* space satellite, as two historians of the period have said, 'the already swelling outcry against the educational system became a deafening roar. Everyone joined in – the President, the Vice-President, admirals, generals, morticians, grocers, bootblacks, bootleggers, realtors, racketeers – all lamenting the fact that *we* didn't have a hunk of metal orbiting the earth and blaming this tragedy on the sinister Deweyites who had plotted to keep little Johnny from learning to read'.[48] Since the 1950s, variations on this theme have become a regular, periodic feature of debate about the condition of American public education, and each new call for a return to 'basics' has brought with it some predictable Dewey-bashing, which (as in the case of recent best-selling indictments by Allan Bloom and E. D. Hirsch) usually insists on misrepresenting Dewey as a Rousseauist romantic.[49]

Though perhaps every American public school district has at least one teacher who has read Dewey and tried to teach according to Deweyan tenets, his critics have vastly overestimated his influence. His legacy is less one of established practice than of adversarial vision. Most schools are far from the 'supremely interesting places' and 'dangerous outposts of a humane civilization' he would have had them be.[50] Yet for those who would make them so, Dewey's work remains a valuable resource.

Notes

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10. John Dewey, 'The Child and the Curriculum', *Middle Works . . .*, op. cit., Vol. 2, p. 276.
11. Ibid.
12. Ibid., pp. 277–8.
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14. Ibid.
15. Ibid., p. 278.
16. Ibid., p. 285.
17. Ibid., p. 291.
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19. John Dewey, 'My Pedagogic Creed', *Early Works . . .*, op. cit., Vol. 5.
20. John Dewey, 'Ethical Principles Underlying Education', *Early Works . . .*, op. cit., Vol. 5, p. 64.
21. Ibid., pp. 64–5.
22. John Dewey, 'Plan of Organization of the University Primary School', *Early Works . . .*, op. cit., Vol. 5, p. 224.
23. Dewey, 'Ethical Principles . . .', op. cit., p. 77.
24. Dewey, 'My Pedagogic Creed', op. cit., p. 95.
25. Ibid., pp. 94–5.
26. Ibid., p. 93.
27. John Dewey, 'Pedagogy as a University Discipline', *Early Works . . .*, op. cit., Vol. 5, p. 285.

128. John Dewey, 'A Pedagogical Experiment', *Early Works . . .*, op. cit., Vol. 5, p. 244.

29. John Dewey to Alice Dewey, op. cit.

30. John Dewey, 'The Need for a Laboratory School', *Early Works . . .*, op. cit., Vol. 5, p. 434.
31. John Dewey, 'The School and Society', *Middle Works . . .*, op. cit., Vol. 1, p. 92.
32. John Dewey, 'A Pedagogical Experiment', op. cit., p. 245.
33. Mayhew and Edwards, op. cit., p. 26.
34. Ibid., pp. 83–4.
35. John Dewey, 'Democracy in Education', *Middle Works . . .*, op. cit., Vol. 3, p. 237.
36. Mayhew and Edwards, op. cit., p. 467.
37. Dewey, 'Democracy in Education', op. cit., p. 233.
38. Dewey, 'The School and Society', op. cit., p. 12.
39. Ibid., p. 16.
40. Ibid., p. 19.
41. Barry Keenan, *The Dewey Experiment in China: Educational Reform and Political Power in the Early Republic,* p. 34, Cambridge, Mass., Harvard University Press, 1977.
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43. John Dewey, 'Individuality and Experience', *The Later Works of John Dewey, 1925–1953,* Vol. 2, p. 59, Carbondale, Southern Illinois University Press, 1984.
44. John Dewey, 'The Crucial Role of Intelligence', *Later Works . . .*, op. cit., Vol. 11, p. 415.
45. Ibid.
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49. Allan Bloom, *Closing the American Mind,* p. 195, New York, Simon & Schuster, 1987; E. D. Hirsch, *Cultural Literacy: What Every American Needs to Know,* pp. 118–27, Boston, Mass., Houghton, Mifflin, 1987.
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Works by John Dewey

The entire corpus of John Dewey's work has been published in the recently completed, thirty-seven volume *Collected Works of John Dewey* (Carbondale, Southern Illinois University Press, 1967–92), comprised of three series: *The Early Works of John Dewey, 1882-1898*; *The Middle Works of John Dewey, 1899-1924*; and *The Later Works of John Dewey, 1925-1953*. Here I list Dewey's major writings on education from this edition in chronological order. Most of his books on education are also available in other editions, many in paperback.

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FRIEDRICH ADOLPH WILHELM DIESTERWEG

(1790–1866)

Karl-Heinz Günther

The work of Friedrich Adolph Wilhelm Diesterweg, one of the most significant German educationists, greatly influenced the German teaching profession in the nineteenth century, especially in its second half. He was one of the great inspirers and pioneers of a genuine school for the people, and his impact, which went far beyond the then German boundaries, can be felt even today.

Diesterweg was born on 29 October 1790, one year after the French Revolution. Thus he was a contemporary of Kant, Goethe, Schiller, Pestalozzi, Schleiermacher, Comte, Herbart, Fichte, Beethoven, Fröbel, Wilhelm von Humboldt, Robert Owen, Spencer and Tolstoy – all these names being of epoch-making significance, and Diesterweg may claim a worthy place among them.

In his lifetime, Diesterweg saw the downfall of the Holy Roman Empire, Napoleon's victory over Prussia, the Prussian reforms, the wars of liberation against Napoleon, the Congress of Vienna, the foundation of the German Confederation, the weavers' uprising, the 1848 Revolution, and Prussia's war against Denmark. It was during his lifetime that capitalism developed in Germany and that the first attempts were made to organize the working class.

If an attempt was made to express his educational work in a nutshell, we could say that Diesterweg, together with Fröbel and K. F. W. Wander, was one of the great German bourgeois educationists of the nineteenth century, whose work brought classical teaching to a supreme climax. These educationists were the intellectual followers of Comenius, Ratke, Rousseau, Pestalozzi, Basedow, Salzmann and many other educationists of the seventeenth, eighteenth and early nineteenth centuries. Diesterweg most consistently applied the following great classical educational ideas to the primary school (*Volksschule*) and primary-school teachers: all people are originally equal and educable; education must aim to develop an all-round and harmonious personality; and it must be available to all. He associated these ideas with all the problems of practical education, which was to be provided to everybody, and thus sought to make them handy tools for the primary-school teacher in particular.

During his lifetime, problems of primary education and its teachers became more and more the focus of his manifold activities, though his first few professional years took quite a different course.

After graduating from the Latin school at Siegen, where he had enjoyed anything but a good educational experience, he studied mathematics and physics at Herborn, Heidelberg and Tübingen. Later he obtained his doctorate with a mathematical-cum-philosophical paper. The events of the time prevented him from taking up a technical profession, which had been his original intention. At first he was a private tutor, then a mathematics teacher in Worms and Frankfurt, before joining the Latin school in Elberfeld as a deputy headmaster in 1818. Under the influence of Pestalozzi's ideas, which he came to know through former pupils of Pestalozzi whom he met at the Frankfurt model school, he gradually resolved to devote himself to primary education. From 1820 he was head of the Prussian teachers' training college at Mörs and, from 1832, of the Berlin teachers' training college. Altogether, these were twenty-seven successful years during which Diesterweg trained teachers for the primary school.

He was removed from office by the Prussian educational authorities in 1847 and compelled to retire in 1850. The reasons for this disciplinary step against an educator who had already become a celebrity in all German states were given by the Prussian educational authorities as follows: Diesterweg had authored 'subversive writings and raised the question of the relationship between school and Church',[1] 'statements and views . . . which contradict the principles followed by the state administration on education', revealing a 'link with party activities'[2] and even 'socialist-communist and demagogical leanings'.[3] Such arguments, which also served as a pretext for banning Fröbel's kindergartens somewhat later (in 1851) had nothing to do with Diesterweg's and Fröbel's real ideas and projects. The real reasons were political ones. Under the influence of the Prussian reforms (started in 1807) and the war of liberation against Napoleonic oppression, the primary school and the training of primary-school teachers received a clear impetus during the first twenty years of the nineteenth century. This development was encouraged by Rousseau's and Pestalozzi's ideas, and the educational activities of Humboldt and Süvern.

The period following the German wars of liberation, that is, the Restoration and the creation of a German Confederation based on a feudal model (1815–47), was characterized by stagnation and restriction, which turned into downright reaction after the 1848 bourgeois-democratic revolution. Democratic and nationalistic ideas and initiatives by the people, especially the petty bourgeoisie, were ascribed by the representatives of the ruling nobility primarily to the primary school and its teachers. A senior official of the Prussian Ministry of Culture, which during the years of the Restoration up to 1848 and the ensuing reactionary period never stopped urging that the educational level of the primary school be kept as low as possible, once said: 'It always made a most repugnant impression on me to see the kind of presumptuous and arrogant teacher, alienated from the Christian faith, who came from Diesterweg's school.'[4]

These trends culminated in the Prussian Regulations of 1854. They strictly limited the programme for primary schools (which were, as a rule, single class) and primary-school teachers' training colleges to a very low level. Education provided to children and student teachers was placed under control of the clergy, schools were directed by the religious representatives, and the salaries and educational standard of primary-school teachers were kept to a strict minimum. All the ideas of bourgeois classical pedagogics on the importance of a general education for all children were rejected. While the rapid development of a capitalist industry demanded a higher level of popular education, the ability of most young people to read and write and carry out the four fundamental operations of arithmetic was considered sufficient for the time being, and all other demands could be ignored.

Throughout his life Diesterweg rejected this official educational policy more and more resolutely and put forward a democratic educational programme which also took the social problems of workers into consideration. These were probably the real reasons for his 'official shipwreck',[5] as he himself called it.

Diesterweg pursued this democratic educational programme not only as a director of teacher training but even more in his journalistic work, as a member of the Prussian Parliament, a speaker at numerous teachers' meetings, and an initiator and supporter of the German teachers' associations. His literary work, as documented and scientifically commented on in his collected works,[6] was very political by nature and consists of about twenty volumes totalling more than 10,000 pages. It is also certainly incomplete since only parts or excerpts from Diesterweg's textbooks have been included. He wrote fifteen textbooks and nine teachers' guides: a total of 120 editions during his lifetime. Some of the textbooks were translated into Polish, Russian, Dutch, Danish and several other languages. They were mainly devoted to geometry, arithmetic, geography, astronomy and the German language.

Diesterweg's best-known educational work, published in 1835, is his *Wegweiser zur Bildung für deutsche Lehrer* [A Guide to Education for German Teachers], four editions appearing during his lifetime. The purpose of the book, starting out from theoretical considerations and leading to direct guidelines for action by teachers, was 'to give instructions on how the teacher, or he who wants to become a teacher, will be able to improve his knowledge and teaching skills, which method he has to adopt for the teaching of particular subjects and which tools he has to use'.[7] The *Wegweiser* is an excellent example of Diesterweg's belief that 'all [educational] theory separated from practice'[8] must be rejected in the educational field. Further, Diesterweg published many small papers such as *Die Erziehung im allgemeinen und Schul-Erziehung insbesondere* [Education in General and School Education in Particular] (1820), *Die Lebensfragen der Zivilisation* [Vital Questions for Civilization] (1836/37) and *Pädagogisches Wollen und Sollen* [Educational Intentions and Obligations] (1857).

Between 1827 and 1866, Diesterweg edited the *Rheinische Blätter für Erziehung und Unterricht mit besonderer Berüksichtigung des Volksschulwesens* [Rhenish Journal for Education and Instruction with Special Reference to Primary Education], wherein he also published hundreds of his own articles. In these articles and in thousands of reviews and annotations of contemporary educational literature he took up directly the issues of teaching and educational policy of that time. From 1851, he published the *Jahrbuch für Lehrer und Schulfreunde* [Yearbook for Teachers and Friends of the School], contributing many important papers to it. During his whole life he remained devoted to the natural sciences, and his book *Populäre Himmelskunde* [Popular Astronomy] (1840), which went through numerous editions, was an exemplary scientific book for the general public.

In his writings Diesterweg dealt with all educational fields, ranging from educational aims to methodological details concerning almost every subject of instruction. As the years of his life advanced, marked by numerous confrontations and disputes, he became increasingly outspoken in his defence of certain political points of view.

It would be too simple to assign, without reservation, Diesterweg's political position to the broad spectrum of liberal thought of his times. While he placed his hopes in a constitutional monarchy, his expectations for education went far beyond liberalism. He regarded the equality of all citizens, in terms of both rights and duties, to be the governing political principle. In 1863, summing up his political views, he wrote:

> The presence of democracy requires the following conditions: free movement of citizens according to their individual needs and aspirations; equality in rights and duties for all citizens of the country; participation of the people in the legislative process, regulated by law, through the agency of freely elected representatives. These are the main elements of the democratic constitution from which everything else follows: freedom of the press, of worship, of thought, freedom of association, self-determination in community matters, free movement of people and goods; and many more rights the main lines of which already exist.[9]

Diesterweg started to deal quite early with social problems based on the situation prevailing in the Wupper and Rhine industrial areas. He wrote that millions of people lived there 'who shamefully lack the means to satisfy the most essential needs for food, clothing and shelter . . . a staggering number of children are deprived in their early youth . . . of the growth and training necessary for strengthening the body and developing the mind'.[10] But such critical insights did not lead Diesterweg to revolutionary conclusions. Like many eminent progressive bourgeois educationists, he believed that social reforms and the 'propagation of correct attitudes',[11] especially through education of the people, were the ways to improve the situation and to guarantee the conditions for the free development and self-determination of individuals.

He aimed at such development for everyone, having in his mind a concept of man that was essentially humanist, rationalist, enlightened, anti-dogmatic and anti-clerical (but not anti-religious). It was largely influenced by Rousseau's views on man's original goodness and was not marked by the doubts Pestalozzi tended to have. Diesterweg, with respect to his conception of man, took up the ideas of his great exemplar Pestalozzi primarily with regard to the latter's ideas on development, his basically optimistic attitude and confidence in man and his powers, in his capacity of being reasonable and kind, and able to lead a meaningful life in an upright community. Diesterweg's conception of man can briefly be described as follows: (a) man's capability for development and improvement; (b) activity as the reason for existence and a condition of development; (c) faith in reason and a dialectical relationship of thought and action; (d) trust in the nature of man; (e) the rejection of metaphysics; (f) taking pleasure in the world's variety; (g) man's aspiration and ability to subject the world, nature and society to his own harmonious ends and to organize them accordingly; (h) unity of the personality in its manifold aspects; (i) harmony between the individual and the community; (j) development of all human powers to the benefit of the individual and society; (k) fundamental equality of all men; and (l) the unlimited diversity of human nature. These views on the nature of man determined the most general aim of education as formulated by Diesterweg, who associated himself with German classical ideas: to direct man's activities towards the truth, the beautiful and the good. In the *Wegweiser* he stated: 'Perhaps the expression "self-activity devoted to truth and goodness" should be given preference to any other, since it contains a basic principle: self-activity; and a material one: the truth and goodness, or better still the truth, beauty and goodness.'[12]

In the last years of his life, and especially after the 1848 Revolution, the idea of individuals carrying out their own activity, or free self-determination, and the development towards it became more and more pronounced in Diesterweg's educational thoughts, in particular concerning schools, and was set against all the restrictive political and educational measures dictated by the Prussian ruling nobility and its bureaucracy. Evolution became the central concept of his educational theory. According to Diesterweg, the principle of evolution corresponded with the principle of liberty in that it demanded that everybody should be allowed to develop his capacities and individual possibilities and that this should be ensured by social institutions. To this is related the principle of equality, which calls for society to guarantee all these opportunities to all children. Such reasoning led to the conclusion that a general *Volksschule*, a school of the people, be set up to ensure equal educational opportunities to all children. Diesterweg wrote in the Hamburg School Plan:

> Nature has provided the child with talents but leaves it to man to cultivate them. . . . Society takes on the task of developing the talents that are equal in nature. . . . Since nature establishes equality, society follows suit . . . by providing equal educational instruments to all people, who are all equally in need of education.[13]

This idea of evolution was applied by Diesterweg to the most various branches of education, leading him to imagine a project as follows:

> The educational principle of evolution demands in the educational field: respect for human nature and of the individual; its stimulation to full development, expression, activity and initiative; natural, hence joyful, experience of life; stimulation to develop the senses, strengthening the body, to explore, to be lucid and to discover things; providing the minds with suitable nourishment; constant progress. It forbids: arbitrary assumptions and manipulations of human nature; any encouragement to act blindly and mechanically; any kind of drill; rote learning; uniformity; force-feeding with subject-matter that is not understood, etc.[14]

In line with his principle of evolution, Diesterweg's demands were that general education should be provided to everybody and that the keynote should be educating individuals to become human beings rather than members of their class. From this position he advocated a considerable improvement in the educational level of the primary school, for example by presenting good literature, science teaching, physical training and education for work, and he stressed in particular the idea of developing the abilities and skills of each person.

Diesterweg coined the democratic expression: 'First educate men, before worrying about their professional training or their social class, [because] the proletarian and the peasant should both be educated to become human beings.'[15]

Thinking about the essence of the overall education of man – which means, in modern terminology, a general education serving the all-round development of personalities – Diesterweg arrived at the conclusion that the essential function of general education was to lay the foundations of a personality development that enabled everybody to prosper in civil life through his own activities. This makes it necessary to concentrate the subject matter of instruction on the essentials and to remove all non-essential elements from the educational programme; what he wanted was 'to provide the genuine fundamentals of knowledge and education',[16] so as 'to give each child all the education which will make a human being worthy of this name'.[17] When defining what is essential, it would be necessary to question far more pertinently than the educational programmes of that epoch not only the 'educating power' but also the 'living conditions of the population'.[18] From this point of view Diesterweg sharply criticized the somewhat sketchy texts and teaching materials used in primary schools in accordance with the Prussian Regulations, as well as by other German states. In his work entitled *Didaktischer Katechismus oder Kurzer Unterrichts-Wegweiser in Fragen und Antworten* [Didactic Catechism or a Short Teaching Guide by Question and Answer], Diesterweg attempted to outline the subject matter 'which must not be missing in any teaching system aimed at a complete basis for human education'.[19] There he defined the aims, content and methods of the natural sciences, arithmetic, geometry, physics and astronomy. Even this still incomplete programme shows, with respect to the content of general education for the general primary school, how far he went beyond the education the ruling aristocracy was prepared to concede to the working-class children in the majority of primary schools. Nature study was designed to prepare the child through study of the surrounding environment – ranging from the classroom to the locality – for instruction proper and to help develop language skills. In Diesterweg's eyes, geometry was essential for all children because the pupil who 'does not know the nature of space, has no idea of the form of objects it contains, which is equivalent to not knowing about being itself'.[20] He regarded physics and astronomy as indispensable elements of a general education to be provided to all children, as they constituted a value in everybody's life without which man would have a deceptive knowledge of nature. Elsewhere Diesterweg identified other aspects of general education that should form part of general primary education, for example mother-tongue teaching, history, sports, literature, geography and drawing. What is important about this is the tendency to design a high-level, universal, educational programme, which was amazingly broad for those days, and to contrast it with the very limited opportunities existing at that time.

Already in his *Wegweiser* Diesterweg had placed special emphasis on the idea of forming intellectual potential. Later on, he said:

> The official goal or purpose of instruction is to stimulate, develop and strengthen mental powers, in particular the higher ones – judgement, understanding and reason – whose development enables man to properly conceive the world and control his basic instincts using his intellect and his will. It is in this way that man, mainly through the development of the intellectual side of his being, really becomes – man.[21]

The progressive method, also called by him the individualizing or induction method, was to carry out this task. This method proceeds from facts to arrive at a theory, from the material world to that of ideas, from experiment to axiom, from the concrete to the abstract, from observation to concepts, from the particular to the general, from the familiar to the unfamiliar, from variety to unity. Using this method, the teacher's role is that of a stimulator of the pupil's initiative. In his work entitled *Pädagogische Rück- und Vorblicke* [Pedagogical Retrospects and Prospects], Diesterweg explained the method:

> On the basis of attention and illustration the pupils' intellect is awakened in an elementary way, which liberates their minds and their tongues, encouraging the development of language and thought. The mind's reasoning powers are improved by contact with reality, and these powers are internalized for later use. This is done through the teacher stimulating the pupil's own activity.[22]

The *Wegweiser zur Bildung für deutsche Lehrer* contains – mainly from the aspect of stimulating the children's own activity in the educational process – a system of didactic statements. In regard to the goal of education, the conception of man and the idea of an all-round education of the personality, all the essential knowledge of progressive bourgeois pedagogics is condensed and arranged in such a way in this *Wegweiser* as to form a useful and readily available 'guide' for primary-school teachers. This is what Diesterweg intended: to write teaching guidelines in the form of clear instructions to the teacher. This is evident from the way in which he addresses the teacher:

> Teach naturally! Organize instruction according to the natural developmental stages of the children. Start teaching from the pupil's point of view and direct his progress steadily, firmly and thoroughly. Do not teach anything for which the pupil is not yet ready and do not teach anything with which he is already familiar. Teach in a lively manner. Proceed from the familiar to the unusual, from the simple to the complex, from the easy to the difficult, from the known to the unknown. Do not teach in an academic way [in other words the lecture-type teaching methods used in higher educational institutions], but simply! Always remember that you are aiming at the abstract [increasing the intellectual capacity] and the material [provision of the curriculum] at the same time. Never teach anything that the pupil cannot understand as yet. Ensure that the pupils remember what they have been taught. Accustom the pupils to work. Take each pupils' personality into account, etc.

A necessary consequence of Diesterweg's devotion to the cause of primary schoolchildren was that he attached much importance to the training, qualifications and social role of schoolteachers. He was an outstanding champion for raising the social standing of primary-school teachers in Germany in the mid-nineteenth century, even though during his lifetime his ideas and demands remained unrealized.

What mattered to him, as Diesterweg wrote in the *Rheinische Blätter*, were three main aspects: 'the educational (didactic, methodological, disciplinary, etc.) competence of the teachers, the independence and autonomy of the school, and a secure position for the teachers, especially with respect to a satisfactory salary'.[23]

All his life Diesterweg championed a thorough and scientific training for the primary-school teacher. He stood against all restrictions concerning the operation of teacher-training colleges, especially after the Prussian Regulations were enacted in 1854. First of all, he demanded that teacher training should be organized on a scientific basis. He wrote that many people thought that it was sufficient to train schoolteachers in their own narrow, special field[24] and that they were unable to 'cotton on' to anything else, if they did learn to 'cotton on they would break away from the narrow circle assigned to them once and for all, forever, and they would quickly become insupportable.'[25] In contrast to this, Diesterweg demanded: 'Confidence in education, confidence in progress, confidence in man and a readiness to cope with all the consequences of acquiring knowledge.'[26]

He came out in favour of liberating primary-school teachers from supervision by the clergy and demanded instead that such supervision should be exercised by people with experience of education. Diesterweg demanded that the teacher should be given a seat and a vote in local bodies (school boards, membership in important associations) which had something to say about school matters. He kept striving for improvement of teachers' social position and demanded in his articles and parliamentary speeches that primary-school teachers should be adequately paid by the state so as to free them from their degrading material dependency on local despots, especially landlords. He expected the state to take measures to secure the material position of teachers' widows and orphans. And it was Diesterweg who kept calling on teachers to organize their own teachers' associations, where together they should defend their interests, contribute to their further education and thus serve the development of education for the people.

In this struggle for the primary school and its teachers, Diesterweg stressed some basic principles: the need to dissociate the Church from education and to regard the school as a public institution (together with the teaching staff) financed and maintained by the state; the need to provide an education system continuing from the kindergarten, which he, on the basis of Fröbel's ideas, strongly supported, through to higher education. He expected the state to guarantee 'to every child an entire, uncurtailed primary education and in addition, if necessary, education provided by the pre-school establishment or day nursery and, later, by further or higher education in a specialized institution'.[27] In 1849, he wrote that a new era would dawn when education was no longer provided according to the weak powers of each individual, but that 'the whole society would declare itself jointly committed' to making it a possibility for the entire nation. He went on: 'Thus the state meets and fulfils a general human right, the right to education, without which a human, moral life beneficial to the public is not possible. Without education, a person would be unable to fulfil either civic or human duties within the family and in human society at large'.[28]

On the occasion of his seventy-fifth birthday, Diesterweg received honours and congratulations from all parts of Germany. He had become an acknowledged pioneer of educational progress and in the struggle to raise the standing of the primary-school teacher.

Friedrich Adolph Wilhelm Diesterweg died in a cholera epidemic on 7 July 1866.

Notes

1. F. A. W. Diesterweg, *Sämtliche Werke* [Complete Works], ed. by Heinrich Deiters et al., rev. by Ruth Hohendorf, Vol. 9, p. 40, Berlin, Volk & Wissen Volkseigener Verlag, 1956–. 15 vols.
2. Ibid.
3. Ibid., p. 45.
4. Quoted from Karl-Heinz Günther et al. (eds.), *Geschichte der Erziehung* [History of Education], 12th ed., p. 269, Berlin, 1976.
5. *Sämtliche Werke*, op. cit., Vol. 9, p. 17.
6. Ibid., vols. 1–15.
7. F. A. W. Diesterweg, *Wegweiser zur Bildung für deutsche Lehrer und andere didaktische Schriften* [A Guide to Education for German Teachers and other Didactic Writings], p. 68, selected and introduced by Franz Hofmann, Berlin, 1962.
8. Diesterweg, *Sämtliche Werke*, op. cit., Vol. 3, p. 363.
9. *Pädagogisches Jahrbuch 1863* [Educational Yearbook, 1863], p. 35.
10. F. A. W. Diesterweg, *Schriften und Reden* [Writings and Speeches], selected and introduced by Heinrich Deiters, Vol. 1, pp. 117 et seq., Berlin/Leipzig, Volk & Wissen Volkseigener Verlag, 1950.
11. Ibid., pp. 137 et seq.
12. Diesterweg, *Wegweiser . . .*, op. cit., p. 59.
13. *Rheinische Blätter, Neueste Folge* [Rhine Newsletter, Latest Series], Vol. 18, 1866, pp. 266 et seq.
14. *Pädagogisches Jahrbuch 1855* [Educational Yearbook, 1855], p. 85.
15. *Sämtliche Werke*, op. cit., Vol. 12, p. 285.
16. Ibid., Vol. 11, p. 216.
17. Ibid.
18. Ibid.
19. Ibid., Vol. 12, p. 151.
20. Ibid., p. 158.
21. Diesterweg, *Schriften und Reden*, op. cit., p. 303.
22. *Pädagogisches Jahrbuch 1866* [Educational Yearbook, 1866], p. 191.
23. Diesterweg, *Sämtliche Werke*, op. cit., Vol. 8, p. 413.
24. Ibid., Vol. 5, p. 283.
25. Ibid.
26. Ibid.
27. Ibid., Vol. 8, p. 42.
28. Ibid., p. 113.

Selected works by F. A. W. Diesterweg

Reference to the complete works of F. A. W. Diesterweg is made in notes 1, 7 and 10 above. The reader's attention is drawn specifically to the following titles:

Die Erziehung im allgemeinen und Schulerziehung im besonderen [Education in General and School Education in Particular]. 1820.

Rheinische Blätter für Erziehung und Unterricht [Rhenish Journal for Education and Instruction]. 1827–66.

Wegweiser zur Bildung für deutsche Lehrer [A Guide to Education for German Teachers]. 1835. 4th ed., 1850–51.

Die Lebensfrage der Zivilisation [Vital Questions of Civilization]. 1836.

Populäre Himmelskunde [Popular Astronomy]. 1840.

Jahrbuch für Lehrer und Schulfreunde [Yearbook for Teachers and Friends of the School]. 1851–66.

Pädagogisches Wollen und Sollen [Educational Intentions and Obligations]. 1857.

Selected works on F. A. W. Diesterweg

The literature in German on Diesterweg is enormous. A selected bibliography can be found in:

Günther, K.-H. *F. A. W. Diesterweg: Volksbildung als allgemeine Menschenbildung* [F. A. W. Diesterweg: Education of the People as All-Round Education]. Frankfurt/Main, 1989.

Another useful source is:

Fichtner, B.; Mencq, P. (eds.). *Pädagogik der modernen Schule* [Education in Modern Schools]. Weinheim/Munich, 1992.

ÉMILE DURKHEIM*

(1858–1917)

Jean-Claude Filloux

Émile Durkheim viewed education within the framework of the plan to construct what he wished to be a genuine 'social science'. That plan was itself determined by a variety of circumstances – Durkheim's own childhood background, the historical situation of France after the war with Prussia and the defeat of 1870, and the long period of social and political unrest his country was experiencing. He was born in Épinal in eastern France in 1852 and, while still an adolescent, renounced the Jewish faith – his father was a rabbi – and decided on his future career as a philosophy teacher. Between 1879 and 1882, he attended the prestigious École Normale Supérieure (ENS) in Paris. Young though he was at the time, he had been deeply affected by the tragedy of the Paris Commune (March–May 1871), a civil war of sorts following the defeat; he acquired the conviction that if he were ever to teach, his mission would be to help his compatriots forge a path towards a society that, in unity and solidarity, would transcend its own conflicts, and to foster changes in society that would lead to cohesion, enabling his fellow-citizens to experience what he called 'the ultimate good' – communion with others.

Those were indeed times of trouble and deep crisis in France. On the political front, the Third Republic managed to emerge in 1875 from the bitter struggles between republicans and royalists. On the economic front, the rise of industrial capitalism came up against an increasingly acute awareness on the part of the working classes, who were becoming more organized, in particular under the influence of socialist theories and Marxism. Added to this was the gradual emergence of a 'secular' spirit seeking to counter the Church's hold on education. The physical and natural sciences were making great strides at the time, strengthening people's confidence in the might of the scientific approach. The young Émile sensed that he had a role to play in the progress of his society and that by choosing to be a teacher he could contribute to that progress through education.

But teaching what a group is and showing people what a 'good society' could be, presupposed a far-reaching scientific inquiry into the 'nature' of society. Even before he entered the ENS, Durkheim had already reflected on the crucial question of the relations between the individual and the group, of what formed the basis of societies, and believed that, in order to construct a scientific sociology, there was an urgent need to go beyond political and social ideologies. The years spent at the ENS were decisive in that regard, for it was there that the threads of this plan for action that was *both* political and pedagogical were drawn together, but it was action that first required a digression from scientific theory, with the introduction of a new variable into the process of social change, namely sociological awareness of society's own representation of itself.

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* The author's original title for this essay was: 'Pedagogy and Educational Sociology in the Work of Émile Durkheim'. – Ed.

In 1882 he made up his mind. It was the beginning of a career in which the work of Durkheim the sociologist reinforced that of Durkheim the missionary (or indeed prophet) concerned with defining the conditions of existence of a society that respected the individual, and evolving the models of the kind of school and teaching that would make such conditions possible.

The question that was his point of departure was the very one that exercised the minds of the political and social thinkers of the time: Should preference be given to the good of the individual or to that of society? Was it better to be 'individualistic', as advocated by the liberals and economists, or 'socialist' in the sense understood by Proudhon and Marx? From the time he left the ENS, Durkheim persistently sought to show that the integration of a modern society stemming from the rise of capitalism was dependent on a new definition of individualism and socialism which only social science could provide.

After a few years of teaching philosophy in secondary schools, Durkheim was appointed in 1887 to a lectureship in 'social science and pedagogy' at the Faculty of Arts in Bordeaux, before taking up, at the Sorbonne in Paris in 1902, a chair in the 'science of education', later renamed 'science of education and sociology', a post he held until his death in 1917.

The institutionalization of a science of education was accordingly inseparable from Durkheim's formal definition of sociology itself. The 'father' of French sociology was thus to be the first educational sociologist, just at the time when Jules Ferry, the Minister of Public Instruction between 1882 and 1886, was laying the foundations of a secular, compulsory and egalitarian school system.[1]

Placed as it was in the context of the construction of a social science which he saw as playing a leading part in the evolution of societies, Durkheim's conception of education must therefore be associated with his model for the analysis of social facts – a model conducive to seeing education from the standpoint of both its nature and its development.

The structure-function model and educational sociology

From the outset, Durkheim's model posits the specific nature of social phenomena, which cannot, in particular, be reduced to psychological factors. Even if the sociologist needs psychology as a point of reference, the rule is to explain the social by the social. It is also a model with an avowed debt to the contribution of the 'early sociologists', which Durkheim willingly acknowledged – namely the analogy between a society and a living organism, made up of organs *(structure)* fulfilling *functions*.[2] In order to understand a social fact, its causes and purposes must first be identified.

Durkheim's originality lies in the fact that he approached structure-function analysis from two parallel standpoints. On the one hand, the group (or society), made up of its organic components, is identified with a systemic entity; hence we may speak of a social system and subsystems responding to *social needs*. On the other, the social system, at any given time, is seen as lending itself to analysis in terms of *superimposed stages,* the relations and interactions between which have to be made clear. This is the substratum of the social system (its material existence), its institutions and collective representations. It may be added that analysis in terms of 'responses to needs' places emphasis on looking for efficient or final causes and that analysis in terms of 'stages' seeks a causality that could be described as causality of expression.

For a thorough understanding of Durkheim's educational sociology, his fundamental works *Éducation et sociologie*, *L'éducation morale*, and *L'évolution pédagogique en France* should be considered in the light of these two approaches to structure-function analysis, which cannot in fact be considered separately.

THE FUNCTION OF EDUCATION

In order to determine the 'function' fulfilled by a social phenomenon, writes Durkheim, in *Les règles de la méthode sociologique*, the first thing to be established is 'whether there is any correspondence between the fact considered and the general needs of the social organism and wherein this correspondence lies'.[3]

In an article written in 1911 entitled 'L'éducation, sa nature, son rôle' [Education, its Nature and Role] published in *Éducation et sociologie,* Durkheim asserts, on the basis of 'historical observation', that 'every society, considered at a given moment in its development, has a system of education which is imposed on individuals'. Every society sets itself a certain 'human ideal', an ideal of what a person should be from the intellectual, physical and moral points of view; this ideal is the crux of education. Society can subsist 'only if there is sufficient homogeneity among its members'. Education perpetuates and reinforces this homogeneity by inculcating in the child's mind the fundamental relationships required by life in the community. Through education, the 'individual being' is turned into a 'social being'. This homogeneity is, however, only relative; in societies characterized by a division of labour, the greater the differentiation and solidarity between various types of occupation, the more a certain degree of heterogeneity is necessary.

> We thus arrive at the following definition: education is the action exercised by the adult generations over those that are not yet ready for social life. Its purpose is to arouse and develop in the child a certain number of physical, intellectual and moral states which are demanded of him both by the political society as a whole and by the specific environment for which he is particularly destined. . . . It emerges from the foregoing definition that education consists of a methodical socialization of the young generation.[4]

This view of education as 'methodical socialization' corresponds to the need for any society to secure the bases of its 'conditions of existence' and its durability. It begins from birth, within the family, of course, but it becomes systematic at school, with the result that school becomes the focus of social continuity when it comes to the transmission of values, standards and knowledge; hence Durkheim's practically exclusive concern with the school system, including universities.

The definition proposed above, however, merely describes the 'fact' or essential nature of education at a given moment, from a static point of view, so to speak. However, not only do societies 'change', evolve and have a history, but within those societies themselves, the institutionalized education systems that are consistent with their needs also evolve and, in turn, generate their own needs. The 'science of education' as the objective study of the social fact of 'education' must consequently situate these systems in the context of a general dynamic which can in fact be described by analysing it in terms of stages in social reality.

THE SOCIAL SYSTEM AND THE SCHOOL SUBSYSTEM

Durkheim focused his study of the 'socialization of the young generations' in schools, within the school system, which he sometimes referred to as 'the machine' and viewed as an organ fulfilling a function, but one that derived its meaning from the global system that a national society represents, for example. Durkheim's originality lay in demonstrating that although this 'subsystem' is dependent on the social system as a whole, it none the less possesses the structural features peculiar to any social system; this confers upon it a 'relative autonomy' and, like any social system, it is subjected simultaneously to forces of permanence and forces of change: forces of permanence that are derived from the system as a whole, and forces of change that respond to emerging needs and are specific to it.

The Durkheimian approach to the school subsystem and its evolution, which he saw as necessary, must therefore be understood in terms of its homology with his model of social dynamics.

Let us consider the main thrust of the Durkheimian model. Central to it is the concept of *conscience collective* (a collective conscience or collective consciousness). A society is composed of individuals who 'cohere' because they share common values and rules, partly transmitted by school. Society, as an object constructed by sociology, neither transcends individuals nor is immanent in them, but has its own specific nature defined by the parameters of 'integration' (allegiance to the group) and 'regulation' (recognition of rules controlling individual behaviour). This *conscience collective* is reflected in collective phenomena ranging from the strictly mental level of collective representations to the level of 'institutions' and that of a 'material substratum' (volume and density of population, communications, buildings, etc.). Durkheim uses the metaphor 'crystallization' to designate this presence of a *conscience collective* in all sectors of social life. Here, two points need to be made clear: on the one hand, the 'stages' of the representations and institutions comprise both formalized aspects (established ideologies, written law) and non-formalized aspects ('effervescent' events, customs); on the other hand, there are two-way relations of causality: substratum–institutions–representations and, vice versa, representations–institutions–substratum.

It was this analytical model that enabled Durkheim to address the problem of *change*: emerging new collective representations tend to be translated into new institutions, provided that these representations correspond to new social needs. This heralds periods in which conflicts between forces of stagnation and forces of change have to be resolved. The increasing division of labour in modern societies demands that more attention be paid to the individual. This gives rise to 'individualist' ideologies which, in turn, result in the emergence of institutions to protect 'human rights'. According to Durkheim, this broad pattern was equally applicable to the school system in which, at any given moment in history, the educational sociologist would be able to discern pedagogical representations, both formalized and 'effervescent', institutions and, of course, a substratum (classroom organization, school structure). These three 'entities' are obviously linked to the global societal system, but have relative autonomy to the extent that any system responds to specific needs, 'educational' needs in this case. An article on secondary education, written in 1905, is significant in this regard:

> Any school system is made up of two kinds of components. On the one hand, there are a whole series of fixed stable arrangements and established methods, in a word, institutions; but, at the same time, within the machine thus constituted, there are underlying ideas at work, urging it to change. Seen from the outside, secondary education appears to us as a series of establishments whose physical and moral organization is fixed; but, seen from another angle, that same organization harbours aspirations seeking fulfilment. Underlying this fixed, consolidated existence there is a life on the move which, though less visible, is by no means insignificant.[5]

In his series of lectures published under the title *L'évolution pédagogique en France*, Durkheim adopts an analytical approach that shows how the 'history' of secondary and higher education since the Middle Ages has been marked by a series of changes resulting from both new political and economic trends, and from the emergence of new attitudes and needs and – where the school system affected by these changes is concerned – from new, partly autonomous pedagogical aspirations. The overview proposed by Durkheim in these lectures demonstrates clearly that educational reforms do not only reflect the general context but also illustrate the way in which the school takes care of emerging needs that are not yet institutionalized in political society as a whole. This explains how the subjects of study which constitute the 'content' of education at any given time can give rise to 'categories of thought', which in turn influence the development of a society's collective representations.

Social dynamics and pedagogy

If, like Durkheim, we understand pedagogy as the implicit or explicit theoretical formulation of educational practice, we must ask ourselves what contribution the science of education can make to pedagogy or, more precisely, in what way the sociology of modernity can influence not only the analysis of the education system, but also the forms of pedagogy practised within that system.

Since modern society is based on growing industrialization and increasing division of labour, the result is a greater degree of differentiation in social roles, the specialization of social functions and, eventually, a risk that 'social solidarity' will disintegrate. This risk must be offset, says Durkheim, by the development – which indeed is observable – of the ultimate values relating to the legitimization of rights and to the responsibility and role of social actors.

RESPECT FOR HUMANITY IN THE HUMAN BEING, THE ULTIMATE VALUE

As early as 1893, in *De la division du travail social*, Durkheim gave a broad definition of 'modern individualism', in which respect for the human person was held up as the ultimate and, indeed, only value capable of ensuring cohesion in modern industrial societies. Four years later, in *Le suicide*, he asserted that if there was still something that human beings could share, it was respect for human beings as human beings, and that respect was the only social cement that remained, the only 'genuine social bond'. After 1895, having established that religion or religions exist in all societies, with God (or the gods) symbolizing society itself in the eyes of the social actors, and that the 'sacredness' of religion expresses the transcendent character of the group, Durkheim came to the conclusion that it was man himself, in his 'humanity', who became a 'God for man', a new form of sacredness exclusive of any other. An 1898 essay on 'Individualism and intellectuals' defined this new form of individualism which should 'henceforth' take concrete shape through political and social changes:

> We are heading more and more towards a state in which the members of any one social group will have nothing left in common other than their human quality, the attributes constituting the human person in general. . . . There is nothing left for men to love and honour together, other than man himself. This is how man has become a god for man and why he can no longer, without lying to himself, create any other gods for himself. And as every one of us embodies some part of humanity, every individual conscience has something divine about it and bears the imprint of a character which renders it sacred and inviolable to others.[6]

Durkheim drew economic and political conclusions from the need – associated with the conditions of existence of modern industrial societies – to recognize 'personalist' values as the basis of social consensus. In his *Leçons de sociologie,* in particular, he described in broad outline an 'emerging' society which, at the economic level, transcended class conflicts, distributed rewards on 'merit' and ensured maximum equality of opportunity among human beings.

In the same book, he developed a theory of the modern state as a 'group of functionaries' in permanent communication with the other groups making up society, a state attentive to humanistic values and responsible for open decisions. Such a society could be termed democratic and meritocratic, or even 'individualist';[7] it could also be termed 'socialist', but in relation to the kind of humanistic socialism that Durkheim saw at work 'in the progress of superior societies'.[8]

WHAT PEDAGOGY?

As he sought to discern the effects of the emergence of humanistic values on pedagogy, Durkheim was confronted with three tasks: establishing how the school system could fulfil a function of 'preserving' the social system as a whole while at the same time bringing about 'change'; how pedagogical 'practices' could be linked to both the formal and the informal institutions elaborated by global society, and by what process they were the result of 'ideas' latent in the school system; and, finally, what pedagogical 'models' should be used to 'teach' pupils both the sense of 'communion with others' and scientific and literary 'knowledge'.

In 1902, shortly before his appointment to the Sorbonne, Durkheim wrote in a letter to Lucien Lévy-Bruhl that he was 'the oldest provincial pedagogue [with] fifteen years' experience in pedagogical teaching'. Only the titles of his lectures have come down to us, but we do have the full text of those he gave in 1894 on moral education and in 1905 on the evolution of secondary education in France. In the same letter, he said that, as a sociologist, he was bothered by the 'ambiguous character of pedagogy (as both an art and a science)', adding, however, that he felt at home when dealing with moral education.[9]

A closer scrutiny should therefore be made of the lecture reproduced in *L'éducation morale*, which was published in 1902, but which he had first given in 1894 and subsequently took up again on many occasions. In the context of the period, with its laws on secular education, Durkheim sought to establish that there might very well be a rational basis for a 'moral' (and not only 'intellectual') education, which derived its authority neither from religion nor from pure ideologies. More profoundly, he was convinced that rationalist faith and an individual-oriented scheme for action were not separable, and that children should therefore be taught to submit voluntarily to the rules of a society that placed the cult of the individual at the heart of its values.

It was for educational sociology, first, to determine the purposes of education, by reference to the general model developed by Durkheim according to which the functioning of any society was to be analysed in terms of mechanisms of 'integration' (the will to live together) and mechanisms of 'regulation' (submission to communal norms). In modern industrial society, or in a society undergoing modernization, the socialization of the child must involve learning at both these levels, with due regard for his own autonomy. The necessary control over selfish and antisocial drives and desires must be correlated to 'group teaching' so as to stimulate in the child the sense of community life, while making it possible for the pupil to be a creative person. Three 'elements of morality' thus determine the form and content of the purposes that educational sociology assigns to education at school – teaching the 'sense of discipline', 'attachment to groups' and 'autonomy of will'.

Giving children 'a sense of discipline', in other words a predilection for regularity and abiding by the rules, is a way of helping them to overcome the state of 'anomie' or bewilderment that would take possession of them if they followed only the dictates of unrestrained desires. Here, Durkheim's underlying argument is a psychological one: only the group (or only 'one' group, including the family) can regulate the insatiable 'appetites' latent in every person, and thus ensure individual equilibrium. It is in that sense that the spirit of discipline not only counteracts the spirit of social anarchy, but ensures self-control by the individual himself:

> Moral discipline is not only useful for moral life as such; its action extends beyond that. It plays a significant role in the shaping of character and of the personality in general. Indeed, what is most essential in character is the aptitude to exercise self-control, the faculty of restraint, or, as they say, inhibition that enables us to contain our passions and desires and to call them to order. . . . Discipline is useful, therefore, not only in the interest of society and as an indispensable means without which there would be no regular co-operation, but in the interest of the individual himself. Especially in democratic societies like ours children must be taught this healthy moderation. This is because the conventional barriers which forcibly curbed desires and ambitions in societies organized differently have partly fallen away and so only moral discipline is left to exercise this regulatory function.[10]

But this 'healthy moderation' is possible only if the child grasps the meaning of the communal interest and learns to see society 'in itself and for itself'. Here again, Durkheim had recourse to a psychological premise, namely that an individual only achieves self-fulfilment as a member of a group. Attachment to the group is, moreover, one of the components of 'attachment to the human being as a human being' and accordingly helps to foster respect for others in the individual within the emerging humanistic society: 'Attachment to the group indirectly but almost necessarily implies attachment to individuals and, when the group ideal is merely a particular form of the human ideal, it is to the human being as a human being that we are attached, while feeling a deeper sense of solidarity with those who more specifically personify our society's particular conception of humanity'.[11]

Here again we find, behind this conception of the individual's submission to the authority of rules and to the group proclaiming those rules, the idea that social consensus implies the cult of individual personality. *Autonomy of will,* the third 'element' of morality, means that the future citizen, at school, must understand rationally, and indeed feel the need and the desire for, allegiance to the ultimate values underpinning the social system.

The pupil is thus required to learn to want moral standards on his own accord and, to this effect, the Durkheimian teacher must give him the 'intelligence' to do so. A spirit of independence can only exist if there is such intelligence or understanding and even the feeling that, in certain circumstances of life, a moral order (or a new moral order) must be created.

Durkheim was aware that moral education was faced with a dilemma: that of teaching discipline and independence simultaneously. The fact is that moral behaviour is a complex matter which 'even implies opposites' and, consequently, the ideal dictated to us by morality is 'a singular combination of dependence and grandeur, submission and autonomy'.[12] In a society based on emerging humanistic values, one of the functions of the teacher (and the teaching profession) is to reflect on *pedagogical attitudes* that will be conducive to this *reconciliation* of sometimes 'opposite' purposes, this being the end to which the process of socialization at school must lead.

The teacher/pupil relationship

Dealing with the 'pedagogical *means*' of education, Durkheim underscored the crucial role of the teacher as an individual, and of teachers as members of a profession and as a 'group'. As has been seen, any 'change' in the education system must be fostered primarily by teachers in order to respond to new social needs and also to the specific needs of the system. 'An ideal cannot be decreed; it must be understood, appreciated and wanted by all those whose duty it is to realize it', he wrote in *Éducation et sociologie*. This is why 'the major reconstruction' of education that Durkheim considered necessary in his time must be 'the work of the very profession that must reshape and reorganize itself'.[13] Building the school system is, in a sense, an ongoing process.

But the outcome of the process of instruction and education depends basically on the teacher's attitudes in relation to his pupils.

Implicit in the teacher's function is the ability to 'make his authority felt' and hence the need to have a 'deep sense of his mission', so as to command a specific form of 'respect' from the pupils. It is 'through words and gestures' that the 'great moral ideas of his time and of his country', of which he is the exponent, can be transmitted from his own consciousness to that of the child; those words and those gestures must therefore be conceived by the teacher having regard to that very purpose.[14]

To that effect, a 'psychological culture' is needed, enabling the teacher to determine the attitudes appropriate for carrying out his 'mission'. Pedagogical models must take account of child psychology which informs us, for example, that the child is fundamentally neither selfish nor altruistic but 'naturally enters into communication with others', a quality that the teacher must know how to use. Such models must also draw on studies of groups which show how individuals in association with others spontaneously develop a collective psyche. Even experiments in hypnosis (very fashionable in Durkheim's day) lead to a better understanding of the nature, but also the dangers, of the teacher/pupil relationship, which is not dissimilar to the relationship between the hypnotist and the person being hypnotized.[15]

There are two particularly striking points in Durkheim's theory: the influence of what he calls the 'school environment' on the social and civic education of the pupil; and the need for the teacher to strike a balance between directionless permissiveness and his own abuse of power.

THE SCHOOL ENVIRONMENT

By school environment, Durkheim meant both the classroom and the establishment in which it is located. He saw it as an 'association', one that is more extensive than the family and less abstract than political society. This is where 'the habit of life in common in the class, attachment to that class and even to the school of which the class is but a part' can be formed.[16] By making use of the child's natural faculty of empathy, stemming from his need to link his existence to that of others, it is easy to teach him to 'like collective living' and acquire a group sense. Here, says Durkheim, there is 'a moment, a unique point in time at which an influence can be exerted over the child that nothing can replace'.[17] And he adds:

> The whole problem consists in taking advantage of this association in which children in the same class are obliged to be, in order to give them a liking for living in a broader, more impersonal group than the one to which they are accustomed. It so happens that this is by no means an insurmountable difficulty for, in fact, there is nothing so pleasant as collective life. . . . It is a pleasure to say *we*. What must be done is to teach the child to savour this pleasure and make him feel the need for it.[18]

But, in order to achieve this, the class must function genuinely as a group. What kind of school, what kind of class is needed to fulfil this expectation? Anticipating the later contribution of studies on the 'classroom group',[19] Durkheim outlined a conception of the class as a teacher/pupil group, a conception to which he was often to revert:

> There is a special form of psychology that is of particular importance to the teacher, namely group psychology. A class is in fact a miniature society and must not be conducted as though it were merely a conglomeration of individuals independent from each other. Children in class think, feel and act differently from when they are apart. In a class there will be phenomena of contagion, demoralization, mutual excitement and healthy effervescence and these must be discerned so that they can be either prevented, countered or used, as the case may be.[20]

The teacher's role is thus to direct the class as a group, taking into account the collective life that is spontaneously formed within it; to multiply the circumstances in which a free elaboration of common ideas and sentiments can take place, to bring out the results, to co-ordinate them; to discourage the expression of 'bad feelings' and to reinforce the expressions of the others. In a word, the teacher 'must be on the look-out for everything that may cause all the children in the same class to sense their unity in a common enterprise'.[21] Among the 'opportunities that favour this result', Durkheim quotes a class's emotional reaction to a moving story, the assessment of a historical figure and even the drawing up in class of a 'code of precepts' to give meaning to punishments associated with school discipline.

THE TEACHER'S POWER

The 'sense of discipline' introduced at school must not be taken to mean total submission to despotic authority. The 'individualist' ideal on which the 'autonomy of will' principle is based requires that the pupil must not be subjected to violence, or at least that the teacher is in control of a specific type of violence that Durkheim held to be inherent in the teacher/pupil relationship.

Durkheim was in fact opposed to the libertarian educators of his time who, like Tolstoy, describing his experience at Yasnaya Polyana, claimed that 'the right to educate does not exist', and that school must leave pupils 'full freedom to learn and to work things out among themselves as they see fit'.[22] Not only does such a conception of pedagogy conflict with the fundamental function of school in any society, but, above all, it fails to take account of the fact that any pedagogical action, even if it is non-interventionist, implies an adult/child relationship that generates a power struggle and hence 'pedagogical violence'. The problem confronting the teacher is not to have to conceal this power relation by means of permissiveness, but to be fully aware of the violence inherent in it and to be able to control it.

A passage in the thirteenth lesson of *L'éducation morale* reveals the extent to which Durkheim the sociologist knew how to use his psychological skills when discussing pedagogy. Comparing all teacher/pupil relations to that of the relationship between a colonial power and a colonized people, he noted that in both cases contact is made between groups of individuals of unequal culture. A single 'general law' applies to both situations and may be described as follows: 'Whenever two populations, two groups of individuals, but of unequal culture, are in sustained contact, certain sentiments develop which predispose the group that is more cultivated, or believes it is, to do violence to the other.' Here, then, is the danger of an 'abuse of power', connected with the fact that the pedagogical relationship is a relationship to knowledge.

> Between teachers and pupils there is the same disparity as between two populations of unequal culture. Indeed, there can hardly be any greater disparity between two groups of consciousness, since the one is a stranger to civilization while the other is imbued with it. And yet, by its very nature, school brings them close together and places them in constant contact with each other. . . . When one is perpetually in contact with individuals to whom one is morally and intellectually superior, how can one fail to have an inflated opinion of oneself, which is reflected in one's movements, attitudes and language? . . . In the very circumstances of school life there is, therefore, something that is conducive to violent discipline.[23]

Instead of being discouraged by a feeling of helplessness, teachers should be alarmed at the extent of their power as the school system develops and becomes more organized, takes on a 'monarchic' form and in doing so heightens the danger of 'school megalomania'.[24] The better the teacher is able to keep the classroom group alive, the more the school will open up to society as a whole, and the more forces there will be to counteract the risk of despotism, a risk proportionately greater the younger the pupils.

Academic knowledge

School is not only a place where pupils are 'educated', receiving, in particular, 'moral' education, but also and at the same time a place where they are 'taught' and learn specific subjects. Durkheim's interest in the means of achieving 'socialization' led him to concern himself essentially with the significance that the teaching of literature and the arts, mathematics and the natural sciences in primary and secondary schools could have.

His sweeping historical overview of educational trends in France (*L'évolution pédagogique en France*) shows how the knowledge transmitted is partly determined by the structure of a given society and also by the philosophical principles (the prevailing epistemology) underlying all branches of learning at a given period. On the other hand, and Jesuit teaching in the seventeenth century is an example, the system of scholastic knowledge has given rise to new categories of thought. Of particular interest here is Durkheim's analysis of the controversies, and the ensuing shift in primacy, between 'classical culture' and 'modern culture' after the French Revolution and throughout the nineteenth century as a result both of scientific advances and of developments in political and religious ideologies.

In order to counteract the malaise that he perceived in the education system of his day, Durkheim sought to elucidate the sense that children could make of lessons like nature study and the study of humanity. As he saw it, the scientific knowledge transmitted must serve as an illustration of 'human reason in activity' and as an 'instrument of logical culture'. Pupils must be given a sense of the complexity of things and be taught to be sceptical of facile or hasty explanations. They must, in short, be trained to be 'rationalists', aware of the labour behind the progress made in physics and biology:

> Our aim must be to make each of our pupils not a complete scientist, but a complete reasoning being. . . . Today, we must remain Cartesians in the sense that we must train rationalists, in other words people who are intent on clear thinking, but rationalists of a new kind who know that all things, whether human or physical, are irreducibly complex, and yet who know how to face up to that complexity without flinching.[25]

As for the study of humanity it must not only familiarize pupils with the major literary and artistic works of the past, but, through the example set by these works, 'convey a sense of the irreducible diversity of humanity' and reveal the versatility and fruitfulness of human nature. We must 'become imbued with the idea that we do not know ourselves', that there are 'hidden depths within us, in which there are latent, unsuspected potentialities', whose 'characteristics or nature' must be brought to light. If sociology is 'still too rudimentary to be taught at school', history can make up for it in order to give pupils a sense of one generation's dependence on previous generations, of the continuity of societies in the process of change, and of the role of the collective conscience or consciousness in a society.[26]

The training of teachers

As we have seen, Durkheim looked at education and pedagogy from a sociologist's point of view. School is a scale model in which both social relations and the relations of individuals with society are mediated through the teacher/pupil relationship and, broadly speaking, in the relationship to knowledge. In Durkheim's scheme, the sociologist is motivated by the desire to contribute to changes leading towards greater social cohesion and the promotion of the 'great moral ideas', which in his view were synonymous with 'personalist' and democratic values. The teacher of the future is thus one who will manage to live out the pedagogical wish of the sociologist.

While teacher training must, as Durkheim repeatedly insisted, include a 'psychological culture', there was no doubt in his mind that the work of sociologists could and should help teachers to have a clearer idea of their place within the educational process. By being given a grounding in sociology as part of their training, teachers should be encouraged to engage in reflection both as individuals and as a group so as to better grasp the meaning of pedagogical practices, go beyond routine and legacies of the past and become aware of the requirements of social dynamics. His course on *L'évolution pédagogique en France* was intended – this was no coincidence – for future secondary-school teachers. The aim was to instil in the would-be practitioner 'a full awareness of his function' and to enable him to see his task as a stage in a long process, that of the whole history of education which, from the sociological standpoint, becomes a genuine 'propaedeutic to pedagogy': through the socio-historical analysis of the development of education systems at different periods, it is possible to investigate any legacies of the past, detect recurring ills and highlight the relative autonomy of an education system in the broader context of social development.

In *L'éducation morale*, as in the essays in *Éducation et sociologie,* Durkheim maintained that a thorough awareness of the human sciences was a necessary part of the training and the 'pedagogical culture' of any teacher. They could show him how to conduct the classroom group, control his own authoritarian attitudes and understand the child or adolescent. To be sure, Durkheim did not fully address the equally pedagogical problem of teacher training, which he saw as theoretical training, but he did put forward the idea, new at the time, that changes in education necessarily involved changes in teacher training.

On autonomy

Durkheim's sociology placed constant emphasis on social determinants, the need to form a socialized individual and training in group discipline, but also – this may seem contradictory – on the 'new' needs specific to modern societies, needs consistent with the emerging conception of human rights, at the level both of the global social system and of the educational subsystem.

The concept of autonomy was central in this context. Durkheim used it, first of all, to highlight the fact that the 'teaching profession' may create its own pedagogical representations and in doing so influence the whole functioning of the social system. But he also used it to assert the need for the educated individual to consent or indeed to participate deliberately in the process of ensuring discipline and group affiliation. In both cases, this autonomy is only relative, since the school system is subordinate to the requirements of the social system and the socialized individual can do little more than contribute, through voluntary commitment, to the survival of his society.

All Durkheim's thinking on education is in fact to be seen in the context of this twofold relativism. Can Durkheimian pedagogy be reduced to a pedagogy of authority? Can it be considered inherently conservative? That would mean overlooking the fact that it is the duty of sociological analysis to guard against 'simplistic' rationalism and to bring to light the *complexity* of things, in which there are always latent 'opposites'.

Although education is a 'matter of authority', the teacher's authority must nevertheless be qualified to prevent school from being, or from being nothing more than, a 'source of barbarity'.[27] To enable pupils to assume the autonomy that will establish them as individuals, the teacher must be aware of the risks inherent in the 'monarchic society' of the classroom and of his own 'megalomaniac' tendencies.

But it is particularly in the pedagogy of 'attachment to the group' that we discover something else, in Durkheim's thought, something more than training in submissiveness. If we look at the chapter devoted to group attachment in *L'éducation morale* in the light of the meaning ascribed to this concept in the overall conception of social dynamics, we can see that the purpose of preparing the child for group life and of inculcating a spirit of association is to induce in the child a will to 'manifest in a group the various forms of his activity' including, in later life, those of the citizen. An isolated individual cannot modify the social status quo on his own; only collective forces can be pitted against collective forces. No effective action can be exerted on society unless individual forces are brought together. This is why the action for change that Durkheim urges people to undertake in order to construct 'personalist' society calls for concerted efforts and consultation among the social actors. Durkheim clearly explains that at school, within the natural group constituted by the class, it is possible to learn how the individual in isolation can do nothing to combat social ills and that it is therefore necessary for personal efforts to be combined, 'to become organized in order to produce some effect'. Learning at school about the power of the individual as a member of the group therefore amounts to learning about the reforming capacity of groups, which in turn provides a response to a clearly conservative social demand.

In Durkheim's view, this reforming capacity is a decisive factor in the promotion of a 'personalist' society, which is why he places emphasis on the status of the pedagogical field as a subsystem in which the future citizen learns, through trial and error, to take due account of the creative forces of the group and to experience the group values of the emerging modern society. Here we go to the heart of the Durkheimian scheme for school education, a scheme stemming from a sociologist's wish to participate, and to secure participation by the education system, in the evolution of a changing society, and also to make teachers aware of these issues.

Influence

One of the direct consequences of Durkheim's views on pedagogy and teacher training was the introduction, as of 1920, of a course in sociology – basically Durkheimian sociology – in the curricula of primary-school teacher-training colleges. Two of Durkheim's followers, members of the editorial team of the Durkheimians' journal *L'année sociologique*, contributed to this innovation; they were Célestin Bouglé and Paul Lapie.[28] Their posts in the university administration system enabled them to design jointly the syllabus of 'concepts in sociology applied to ethics and education' and, in the face of fierce opposition, especially from religious circles, to secure its inclusion in these curricula. The lectures in general sociology and the sociology of education should, they believed, 'convey to future teachers the principles of the functioning of social relations'. Textbooks were produced along these lines and it appears that these 'new' courses of study were well received by those for whom they were intended. Called into question after 1933, the sociology curricula for primary-school teachers were subsequently incorporated into more general study courses on the various human sciences, and have since been opened up to the various developments in sociology.

The fact that Durkheim in effect inaugurated, under the name 'sociology of education', a 'scientific' approach to educational facts as social functions gave rise to an extensive body of literature in several countries dealing with the study of the relations between school and society, unequal opportunities and the functioning of the classroom group. In France, the views of Pierre Bourdieu and Jean-Claude Passeron in their book *La reproduction* hark back in a sense to Durkheimian concepts when they refer, for example, to the social function of education (a 'reproduction' of the social system) or the mechanism of socialization involved ('symbolic' violence).[29] The socio-historical approach adopted by Durkheim in *L'évolution pédagogique en France* has also been taken up to some extent by historians like Pierre Riché, who believes that this book is still highly relevant today.[30]

Generally speaking, however, is it appropriate to speak of Durkheim's present-day relevance both sociologically and pedagogically? In today's context, a reading of Durkheim's works is bound to raise questions prompted by present-day circumstances, especially those concerning moral education. We may, of course, have some misgivings about Durkheim's faith in the ineluctable development of humanistic values in modern societies, confronted as we are with conflicts in which human rights are flouted, but the very fact that Durkheim established, if implicitly, the principle of human rights education undeniably makes his thinking relevant today. On another level, he demonstrably directed pedagogy towards the view that the class, the school environment and the teacher's attitudes are factors to be taken into account in the education process – a truth that it is still worth repeating today.

Perhaps another lesson to be drawn from the contradictions inherent in Durkheimian views on education to which we have referred (and which Durkheim himself acknowledged), for instance those concerning 'autonomy of will', is that education is no simple matter and cannot be subjected to reductionist ideologies.

Notes

1. After the proclamation of the Republic in 1875, education in France became a common ideal. The prime concerns were to establish primary education as a secular public service and to make it free and compulsory. Hence the 'fundamental laws' promulgated by Minister Jules Ferry between 1879 and 1889. The secularization of the school system was to provide a positive foundation on which to build the unity of the national spirit. Durkheim took an active part in the debate on these issues during this crucial period.

2. It was Auguste Comte (1798–1857) who coined the word 'sociology' as part of his construction of a 'positive' philosophy. His *Cours de philosophie positive* sought to lay down the conditions for social 'consensus' through the concepts of 'order' and 'progress' and the constitution of a 'religion of humanity'. Herbert Spencer (1820–1903) explicitly took as his point of departure the analogy between societies and organisms in order to postulate concepts of structure and function and to analyse the development of societies and 'institutions', drawing a distinction between a 'sustaining' system, a 'distribution' system and a 'regulative' system. He wrote his *Principles of Sociology*, a sweeping anecdotal survey of social developments, between 1876 and 1896.
3. Émile Durkheim, *Les règles de la méthode sociologique,* p. 95, Paris, Presses Universitaires de France, 1990.
4. Émile Durkheim, *Éducation et sociologie,* p. 51, Paris, Presses Universitaires de France, 1992.
5. Ibid., p. 122.
6. Émile Durkheim, 'L'individualisme et les intellectuels', *La science sociale et l'action,* pp. 271–2, Paris, Presses Universitaires de France, 1987.
7. Émile Durkheim, '7^{e} leçon', *Leçons de sociologie,* Paris, Presses Universitaires de France, 1990.
8. Émile Durkheim, 'Sur la définition du socialisme', *La science sociale . . .,* op. cit., p. 235.
9. Letter dated 6 May 1902 to Lucien Lévy-Bruhl, published as an annex to the book by Georges Davy, *L'homme, le fait social et le fait politique,* Paris, Mouton, 1973.
10. Émile Durkheim, *L'éducation morale,* pp. 39–42, Paris, Presses Universitaires de France, 1992.
11. Ibid., p. 70.
12. Ibid., p. 105.
13. Durkheim, *Éducation et sociologie,* op. cit., p. 120.
14. Durkheim, *L'éducation morale,* op. cit., p. 131.
15. Émile Durkheim, 'L'éducation, sa nature et son rôle', *Éducation et sociologie,* op. cit., p. 64.
16. Durkheim, *L'éducation morale,* op. cit., p. 195.
17. Ibid., p. 203.
18. Ibid., pp. 203–4.
19. Studies on 'small groups', based in particular on the theories of Kurt Lewin, had an impact on the approach to the 'classroom group'. See, on this point, Jean-Claude Filloux, 'Psychologie des groupes et étude de la classe', in M. Debesse and G. Mialaret (eds.), *Traité des sciences pédagogiques,* Vol. 6, pp. 30–106, Paris, Presses Universitaires de France, 1974.
20. Émile Durkheim, 'Nature et méthode de la pédagogie', *Éducation et sociologie,* op. cit., p. 89.
21. Durkheim, *L'éducation morale,* op. cit., p. 205.
22. Tolstoy is less well known for his educational work than for his literary production. However, the teaching experiments he conducted between 1858 and 1862 in the school he had started on his estate and the theoretical articles he wrote left an imprint on the history of education, if only for their influence on later libertarian teaching approaches. See in the French translation, *Œuvres complètes,* Vols. 13 and 14, Paris, Stock, 'Sur l'instruction du peuple' and 'La liberté dans l'école'; also Dominique Maroger, *Les idées pédagogiques de Tolstoï,* Lausanne, Éd. L'Age d'Homme, 1974.
23. Durkheim, *L'éducation morale,* op. cit., pp. 162–3.
24. Ibid., p. 164.

25. Émile Durkheim, *L'évolution pédagogique en France,* p. 399, Paris, Presses Universitaires de France, 1990.
26. Ibid., p. 378.
27. Durkheim, *L'éducation morale,* op. cit., p. 157.
28. Célestin Bouglé (1870–1940) was one of the most influential members in the team of Durkheim's followers. He wrote two books, *Les idées égalitaires* (Paris, Alcan, 1899) and *Essais sur le régime des castes* (Paris, Alcan, 1908). His career as a university professor took him to the Sorbonne and then into university administration as the Director of the École Normale Supérieure. Paul Lapie was also a member of the Durkheimian team of contributors to *L'année sociologique*; he carried out the first known research on 'the psychological and social determinants of success and failure at school', and published several books, including *L'école et les écoliers* (Paris, Alcan, 1923) and *Pédagogie française* (Paris, Alcan, 1920). He was Director of Primary Education from 1918 to 1925 and then Rector of the Académie de Paris (Board of Education) until his death in 1927. On Bouglé and Lapie, see the articles by W. Logue, 'Sociologie et politique: le libéralisme de Célestin Bouglé'; M. Cherkaoui, 'Les effets sociaux de l'école selon Paul Lapie'; and R. Geiger, 'La sociologie dans les écoles normales primaires: histoire d'une polémique', all three of them published in 'Les Durkheimiens', *Revue française de sociologie* (Paris), Vol. 20, No. 1, 1979.
29. P. Bourdieu and J.-C. Passeron, *La reproduction*, Paris, Éditions de Minuit, 1970.
30. P. Riché, *Les écoles et l'enseignement dans l'occident chrétien,* Paris, Aubier-Montaigne, 1970.

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JÓZSEF EÖTVÖS

(1813–71)

István Mészáros

> Nowadays people want to assign to the state the prerogative to educate its citizens, deeming education to be the best means of influencing the views of the population. I, for one, dispute this right because – at least in a free country – one cannot vest in the state (or in those entrusted with exercising its authority) a power that would not only put paid to the freedom of the individual, but would also wreck all chances of progress, a power which those exercising the authority of the state will always use, things being what they are, to consolidate their own position. The advantage of a free Constitution lies precisely in the fact that under it the *views of its citizens determine the policies of their government.* And whosoever seeks to reverse this relationship, postulating that it is the government's job to define what the citizen should think, is fundamentally opposed to the idea of a free state.

The author of these lines was obviously a resolute opponent of the forceful, intrusive, almost dictatorial, centralized and all-pervading exercise of power by the state. It was in the early 1850s that József Eötvös, the eminent Hungarian politician and statesman, committed his philosophy to paper, to be published later in Hungarian in two volumes entitled *The Influence of the Nineteenth Century's Dominant Ideas on the State*. The first tome appeared in Vienna in 1851, the second in Pest in 1854. The above quotation comes from the latter, where the author examines the chances and prospects of a highly centralized state education system.

In this analysis he deliberately left out of account the fact that with frequent changes of government the persons involved in, and the principles underlying, educational policy are also liable to be replaced. In the case of a centrally controlled education system, this can mean tuition according to widely differing – sometimes even mutually contradictory – educational principles. The result will be that in the end pupils are left with 'no firm opinions at all'.

In Eötvös's view, the main reason why a centralized and absolutist state education system should be rejected lies in the fundamental difference between instruction and education. In truth, instruction constitutes but a tiny part of education, hence 'it can never exert a decisive influence on the minds of the citizens, especially in regard to the type of constitution really wanted'. Several historical examples supported this view, he claimed.

Over the centuries the Roman Catholic Church possessed a strongly centralized system of education, yet this did not prevent the Reformation. There followed the Jesuits' system of education, organized along the strict lines of military discipline. But were the Jesuit schools in the end

> capable of preventing the revolution in men's minds, something they were actually designed for? And never mind the quip about Voltaire just being a disciple of the Jesuits! Many Economists and Encyclopedists were the same, as was indeed a whole generation which, driven by its hostility to the Church and the established order – that Grand Order – plunged almost into madness: all of them had grown up under Jesuit influence.

Another example is that of Napoleon, who, 'with tremendous administrative talent and iron-willed consistency', completely centralized the French system of education, totally subordinating it to state control. No one knew better than he the fundamental prerequisites upon which the systematic, deliberate and well-planned state control of public education rested.

Napoleon modelled his professional body of teachers partly on the army and partly on the structure of the Church, creating a strict and close-knit hierarchical system for the different ranks of educationists. 'If it were at all possible to channel the views and opinions of a great nation in a certain direction, one must admit that the state system of instruction as devised and partly set up by Napoleon would be the one most likely to succeed.'

This Napoleonic experiment, was it then a success? 'I think', says Eötvös, 'that anyone who is familiar with French history since the system has been in force could not say that it has been a success.' Contrary to what was hoped, 'the influence of the school system has not enabled the citizens' views to be mobilized in support of the Constitution'.

The main reason for the failure was that instruction represented but a minute part of education. Hence, although all citizens might acquire the same ideas and absorb the same facts at school, it does not necessarily follow that the views and beliefs formed from these acquired notions would be identical.

Actually, the areas from which the citizens receive the impressions that will decisively shape their individual opinions on the established order, form of government and personal circumstances were far wider and more comprehensive. (Eötvös emphasized here the effects of the press.) Within this wide framework of influential and formative factors, instruction takes up but a minute area.

Furthermore, and that is the second prong of his argument, the official power of the state will never be able to influence completely the field of teaching as a whole. 'No government will ever have it within its power to organize teaching in such a way as to ensure its partiality for the Constitution.' Because, argues Eötvös, if every social stratum acquires the right to a free intellectual development, and going by the example of most European states, this development has become every citizen's duty, then the state will no longer be in a position precisely to anticipate the consequences of every one of its actions.

> Indeed, who could ever hope to predict the mental impressions and ideas created in a hundred different pupils by one and the same lecture? Irrespective of the explanations prof-

fered, every listener's view of the subject will vary according to his personality and status. Instead of imparting ready-made opinions, the school should much rather provide an opportunity to acquire insights, personal insights not dependent on what one was told, but on life's experience.

Even supposing that the schools' entire teaching staff were all fervent supporters of the regime, the government and the existing social order, and that 'they had no other objective but to din into the young views favourable to the existing Constitution', even then, according to the author, the influence thus exerted by the state to mould its citizens' political opinions would only be trivial. The principal reason being the mistaken belief by the supporters of a centralized, absolutist education policy that thousands of teachers, sharing a common profession and tightly knit in a hierarchical organization, would feel and act as 'a single person', and would be capable of being manipulated in the same way. In fact, it is impossible to create a professional body of educators in which every member relinquishes his individuality and completely submerges his personality in the group.

Every teacher is bound by numerous separate ties to his own environment, to different social strata, to other people and other activities. Nor is there any reason to suppose that teachers are free from discrete, personal interests which differ from those of the state (or, to put it more precisely, 'differ from the interest of the regime that has appointed them to their office'), and it is hardly conceivable that they should all place their job – even if it depended on the government – above their private convictions.

Eötvös was thinking here of the fate of the teachers in Europe's state-run primary schools whose circumstances at the time were not exactly flourishing. 'Seeing the conditions the state is capable of inflicting upon its teachers, we must confess that this is indeed unlikely', that is, that the teachers would sacrifice their own interests to those of the state.

In Eötvös's opinion, the experiences of recent years rendered all hypothetical and theoretical disputes in this matter superfluous. 'In 1848, when society burst its banks, it was generally the teachers of state-run schools who, as a body, showed the greatest hostility towards the state', in other words, towards the regime under which and in whose service they had hitherto carried out their profession.

Concluding his reflections on this theme, the author cites post-1848 revolutionary France as an example: following the restoration of the monarchy in 1852, many teachers were dismissed 'because they had propagated communist ideas among youth'. This demonstrated, according to Eötvös, that although the state might wield some power over the teachers it had appointed, 'this writ does not run to the teaching process itself, since the state's prerogative of appointment was unable to prevent ideas obviously hostile to the government from being taught in so many French state-controlled schools'.

Eötvös therefore rejects the dictatorial, absolutist and centralized form of state power as not being conducive to progress either in education or anywhere else. None the less, in the modern bourgeois state, the controlling role of central government is of crucial importance, provided always it is closely supervised by the self-governing organs of local communities. The latter are capable of influencing those holding the reins of central government power, and in this way – via the independent self-governing communities – the political views of the population can provide effective checks and balances to any possible excesses on the part of the central government.

Equally important, however, is the fact that under such a system the citizen's personal freedom has the best chance of developing, that individual views and opinions can most effectively be expressed and disseminated, and that they can be made to prevail even against the central power of the state.

In a modern bourgeois state, Eötvös finally concludes, it is the sober, realistic balance between the state's central power and the citizens' self-governing organs that creates the essential prerequisites for the well-being of the individual citizen and the welfare of the community as a whole, as well as for the establishment of a modern, middle-class system of education.

Eötvös was enunciating these ideas on constitutional theory and educational policy when in April 1848 – that is, even before his above-mentioned book was published – he accepted the post of Minister of Religious and General Education in the Hungarian Government. His work in office was to be short-lived because of the outbreak in September 1848 of Hungary's freedom struggle against the Habsburgs.

Some two decades later however, between 1867 and 1871, during his second period in office as minister, he again founded his educational policy upon the principle of a well-balanced relationship between the powers of central government and the self-governing organs of local communities, with a view to creating in Hungary a sound and modern middle-class education system.

József Eötvös was born in 1813 into a family of the Hungarian nobility. His immediate forebears had all been high-ranking members of the civil service, loyal to the House of Habsburg. Having received his general education at the Piarist Fathers' College in Buda, he attended lectures on philosophy at Pest University. From his very first visits to Western Europe in the 1830s he learnt about social and economic conditions in Switzerland, Germany, the Netherlands, France and the United Kingdom, and made the acquaintance of politicians, writers and other public figures. He was thus able to deepen his understanding of contemporary middle-class social ideas, a knowledge solidly founded upon his earlier extensive studies.

Eötvös was profoundly influenced, both through books and his personal experience, by the ideas of middle-class liberalism which came to form the foundations of his literary thought, political writings and work on educational policy.

It is well known that the source of liberalism was the Enlightenment, the ideology of the French bourgeoisie in the eighteenth century. Organized as a separate class, the bourgeoisie joined battle for the seizure of political and economic power, attacking the old order and its ideas, constitutions and representatives, as well as the monarchy and nobility as its bastions of power, armed primarily with the hope and the promise of individual liberty, equality and fraternity. The goal was the destruction of the existing feudal socio-economic system with its fetters on the emerging middle class, and its replacement with a system of power representing the interests of the bourgeoisie. After the middle class had attained power, and with the same objective in view, free competition was encouraged in the economic sphere, the freedom of speech, of the press and of assembly were ensured in public life, and under the reorganization of the country's internal social structure, measures were introduced to abolish serfdom, provide fair taxation, to set up a representative National Assembly, and to safeguard equality before the law and equal rights to religious communities.

The evolution of Eötvös's liberalism was significantly influenced by the ideas and actions of French bourgeois thinkers and statesmen. They underpinned his political philosophy with its rejection of the state's dictatorial centralized power in favour of independent self-governing local communities.

This political philosophy emerged very distinctly during the Napoleonic era which followed the French revolutionary events, and also from the writings of the social philosophers of the Restoration period. Benjamin Constant, the author of the Napoleonic Constitution, for instance, demanded the curtailment of the power of the state in order to safeguard the freedom of the individual, urging the establishment of comprehensive local self-government. Another eminent thinker, Alexis de Tocqueville, also opposed the all-powerful state with its unrestricted centralized legal powers, advocating instead freedom of the individual and local self-government. Similar views were expressed by Guizot and Thiers.

With his open-minded outlook, Eötvös found these political ideas attractive and congenial, and they were substantially to influence his own independent, Hungarian-related concepts and views on educational policy and organization.

In the 1830s and 1840s, Hungarian public life was in a state of ferment. Although society was still subject to the old feudal system, there existed already a sizeable and ever-growing body of opinion, composed of intellectuals of aristocratic and bourgeois origin, clamouring for reforms. In pursuit of the ideas of liberalism, they sought by means of reforms to sweep away feudal conditions and transform Hungarian society along bourgeois lines.

The Kingdom of Hungary existed in those days within the confines of the Habsburg Empire, because traditionally the Emperor was also King of Hungary. In the above-mentioned period, the 1830s and 1840s, relations between Hungary and its king, the Habsburg ruler, were none too harmonious. Considerable sections of Hungarian society struggled for Hungarian independence, that is, for the loosening or even severance of all ties with the Habsburg monarchy.

The principal aspiration of the supporters of the Hungarian bourgeois reform movement was the same as that of their French exemplars. Their main demands for social change were: (a) a National Assembly based on full popular representation; (b) a fully accountable government; (c) the freeing of the serfs; (d) universal extension of citizens' rights; (e) equality before the law; and (f) freedom of the press. In short, they called for the establishment of a bourgeois parliamentary state.

Soon after his debut on Hungary's political scene, Eötvös made his mark as a leading figure of the reform movement. In his first major political work, published in 1841, he examined the close connection between the emancipation of the serfs and general public education.

Important as it was to abolish the privileges of the nobility, he contended, it was as vital to grant equal civic rights to all the country's inhabitants, while at the same time giving them every opportunity to acquire a basic education. The two requirements and their fulfilment were closely linked: in his view only a properly educated citizen could fully live up to his rights and not abuse them.

Throughout his lifetime, Eötvös's abiding concern was the fate of the serfs for whose freedom he so strenuously fought (and whose emancipation was finally achieved in the spring of 1848). In his view, without suitable education the granting of civic rights to them might constitute a danger to society as a whole; a comprehensive extension of general public education, though, might contain any revolutionary stirrings among the lower social strata. It was Eötvös's firm conviction that the proper organization of the institutions of basic education for the lower strata was essential for social progress, both from the point of view of economic prosperity of these strata and the development of society as a whole.

Eötvös, with his wide-ranging European outlook, was chiefly interested in the education of the lower social strata, and in the scope and depth of this education. His other interests lay in many fields: an excellent organizer, political writer, poet, novelist, public controversialist, successful statesman – he was all of these – but essentially the one interest that dominated his preoccupations and pervaded all his other efforts was his wish to raise cultural levels in general. He staunchly upheld the view that for the future welfare of the nation it was crucially important that culture should spread its roots as widely and as deeply as possible.

He declared that a nation must provide for every social stratum its own up-to-date cultural and educational system of institutions and, alongside it, the chance of access to culture's manifold and alluring attractions. Only through culture can individuals and society better themselves and enhance their moral stature, and only thus can both the individual and the nation as a whole attain the loftiest of ideals – liberty.

In all this he considered the cultural advancement of the lower social strata to be particularly important. For in Eötvös's view, as stated in 1847, the principal cause of the existing tension between social strata 'is neither a social matter nor a question of wealth, but one of cultural differences'. According to him, conflict between individuals, social strata and classes arises not because of their different origins or economic positions, but because of the lack of cultural depth and penetration in their make-up.

Ultimately, that is why general public education was so necessary, namely to enable the lower strata of society to acquire the benefits of civilization, to permit the development among them of a cultured, broad and informed outlook, and to enable them to take the correct actions. In Eötvos's opinion, the best guarantee of the Hungarian nation's future welfare lay in peaceful and tranquil social progress.

The time for the implementation of these ideas on general education came in 1848 with the Ides of March. When the first fully responsible, independent Hungarian Government was formed in the wake of the March revolution, József Eötvos was entrusted with the portfolio of Minister of Religious and General Education. Thus, after years of gestation, the spring of 1848 witnessed at last the birth of the foundations of the middle-class transformation of Hungarian society and the launching of a comprehensive Hungarian system of public education.

The new minister set about his task of turning his plans into reality with a will. He expanded the scope of his ministry, started the statistical evaluation of Hungarian education, began the modernization of secondary and higher education, and encouraged teachers to organize themselves into a professional body, at the same time initiating significant measures to enhance their material and social status.

His most significant action, however, was on behalf of general public education. On 24 July 1848 he tabled in the new National Diet his Bill on the Organization of General Education. Unfortunately, at that particular time, political conditions were unfavourable to any plans to reorganize and modernize Hungarian education: instead of peace, the future increasingly held the prospect of a protracted national struggle for freedom. So the bill designed to create a unified and up-to-date bourgeois system of education slipped off the agenda.

In any event, soon the whole topic of education and schooling was relegated to the background of Hungarian public life in the face of Austria's armed intervention against the attainments of the Hungarian bourgeois revolution. The short-lived Hungarian Government wavered, and ultimately resigned in September 1848. Eötvös's ministerial work had come to an end, and all hopes of reforming the system of education faded.

The outbreak of hostilities in Hungary during the autumn of 1848 swept away all major reform plans and initiatives: the Hungarian people were now locked in a desperate battle for their independence. Eötvös, never a partisan of armed struggle or revolution, retired for a time from public life.

After the defeat of Hungary's attempt at freedom, Eötvös plunged into a busy literary life, producing new novels and poetic works, but also addressing himself to political problems. The most important of these political writings was his above-mentioned *Influence of the Nineteenth Century's Dominant Ideas on the State.*

The consolidation of Hungarian political life during the 1860s produced the so-called Compromise. Under it, the Hungarian Diet enacted all the measures agreed under a compromise solution with Austria, and, in the summer of 1867, Francis Joseph was crowned King of Hungary. Thus the Austro-Hungarian Monarchy was born, consisting of two independent states, though continuing to share the same sovereign and the services of joint Ministers of Defence, Foreign Affairs and Finance. The Compromise marked the end of the Hungarian bourgeois revolution of 1848 by an imposed conciliatory solution. Vienna had to abandon its plans for a unitary, centralized Habsburg Empire, while Hungary's political leaders, by accepting the three shared ministries, had renounced their country's complete independence. There can be no doubt, however, that this *modus vivendi* – albeit not without its own problems – did enable capitalism to develop in Hungary and the bourgeois education system to progress.

In the new Hungarian Cabinet of 1867, József Eötvös returned to office as Minister of Religious and General Education. Now, after a twenty-year gap, implementation of his earlier schemes could commence in more settled circumstances. His reform plans again aimed at the renewal of Hungary's entire educational set-up, with a view to establishing a school system that would fully meet the requirements of a modern bourgeois society. He now put in hand the vast undertaking of modernizing the country's teaching institutions from nursery school to university. Yet, of all his initiatives, his plans for the introduction of general public education would prove to be the most important and most successful.

The first public primary schools came into existence in Hungary in the second half of the sixteenth century at a time when the storms of the Reformation and Counter-Reformation were at their height. Their network spread in the seventeenth and eighteenth centuries, so that by the nineteenth century it had become properly organized, working to a well-differentiated syllabus. Teacher training, too, had begun.

Initially maintained by the Church authorities, from 1777 these schools were beginning to come under the aegis of the state. The great era of Hungarian educational reform, both in content and organization, began in the 1860s; the objective was to introduce a comprehensive system of public primary education suited to a modern bourgeois society.

In July 1868, Eötvös, as Minister of Religious and General Education, submitted to the National Assembly a new Education Act which, after a stormy debate, was passed by both the Chamber of Representatives and the Upper House. Its principal provisions were as follows:

1. Compulsory school attendance: daily attendance of public elementary school is obligatory for all children aged 6 to 12 years; daily attendance at public upper school is obligatory for all those aged 12 to 15.
2. The setting up of public primary schools is unrestricted:
   (a) The Act enjoins in the first instance local communities to establish schools for the public, authorizing them to levy for this purpose a school tax amounting to no more than 5 per cent of the general tax; if insufficient, this sum will be augmented by a state grant;
   (b) The different religious and denominational communities are entitled to maintain public primary schools 'with their own resources', provided they comply with the provisions of the Act (prescribed subjects, dimensions and equipment of school premises, teachers' qualifications and prescribed salaries, maximum of eighty pupils, hours of attendance, etc.); if a religious community so wishes, a school maintained by a religious community may become a general public primary school without religious or denominational character.
3. The direction and supervision of public primary schools is the duty and responsibility of the state, irrespective of the financial responsibility for its maintenance; an inspector of public primary education, appointed by the Minister, is responsible for the supervision of all public schools in his district, including those maintained by religious communities.
4. Twenty new state training schools for schoolmasters and ten for schoolmistresses, providing three-year courses, are to be set up.
5. Types of public schools:
   (a) Elementary public school (six forms, daily attendance);
   (b) Upper elementary school (attendance five hours a week for five months per school year);
   (c) Secondary public school (originally six forms, subsequently reduced to four; attendance possible after four years of elementary public school; the curriculum adapted to the needs of the urban middle-class);

(d) Higher public school (three forms for boys and two for girls after six years of elementary public school education; curriculum similar to that of secondary public school, but without a foreign language).

6. Subjects to be taught at elementary public school: religious knowledge; speech and comprehension exercises; reading/writing; arithmetic/geometry; geography/history/civics; natural history/physics; singing/drawing/physical culture; practical farming and gardening experience.
7. Pupils at elementary public schools are fee-paying, although those from poor families may be exempt.
8. The language of tuition is the pupils' mother tongue.
9. The Act lays down precise details for the duration of lessons, school equipment, school buildings, dimensions of classrooms and their furniture.
10. Boards of Public Education are to be set up in towns and villages from members of the population to superintend the running of public schools.

In his speech introducing the Bill, Eötvös said:

> It is by now an acknowledged fact that of all the factors determining the well-being of a people and thus the vigour of a country as a whole, none is of greater importance than the nation's state of education. Hence, no country can claim to be properly run unless it pays closest attention to its education system.

This applied particularly to bourgeois parliamentary states, he said, where the people had a direct say in legislation and thereby in government. The population's standard of education would therefore decisively affect the quality of this influence.

At the same time, the educational situation of a country would also significantly affect its people's material condition and general well-being. Hence, a properly organized public education system would play a vital part in the welfare of the state as a whole, and in its economic progress.

Eötvös reminded the House that he had drawn up his bill according to the educational principles he had enunciated two decades earlier, being convinced that he would only discharge his duty – which he deemed to be the implementation and consolidation of the principles laid down in 1848 – if he succeeded by the proper organization of public education in underpinning the foundations of the stability of every democratic constitution and thereby ensuring that the principles the nation had espoused in 1848 would finally come to fruition.

Eötvös explained in great detail why he thought the bill was needed. To start with, he argued, in a modern bourgeois society it was the state's business to safeguard the prime assets of its subjects, and since the medium of public education enabled the citizens to acquire such assets, it was the state's duty to sustain public education. This fundamental principle entailed three consequences:

No citizen had the right to prevent the state from discharging this duty. Hence the state was entitled to force a parent to send his child to school and could insist on obligatory public education.

The state had the right to obtain the resources necessary for the discharge of this duty. In other words, it was entitled to levy a school tax.

It was the state's duty, if others too were engaged in general public education, to check how these other parties carried out the task they had assumed. Consequently, the state had a right of supervision not only of its own general public schools, but also of the public schools maintained by others, including the religious communities.

In Eötvös's opinion, the state's central authority of control, direction and supervision had a proper place in general public education. But so had its opposite – the local efforts by the autonomous communities.

'I firmly believe', he declared in his speech, 'that if we wish to have a good public education system, we must not exclude the major influence of the parents on educational matters, especially the collective influence which parents, i.e. the communities, can bring to bear on the public schools.' Again he posed the question as to 'whether the community should have any say in the management of public schools'. His categorical reply was:

> I refuse to engage in a theoretical argument on this matter, for as examples throughout the world show, the public schools will prove their worth most convincingly where the community exerts a large measure of influence, as is the case, for instance, in America, Switzerland, and in those parts of Germany where the communities are allowed to have their say. An example of the opposite case, i.e. of the government's monopoly of power, can be found in France where, despite every effort, the level of general public education is far below the average, or at any rate far lower than it ought to be judging by the cultural level of its upper classes.

He summed up his views on this matter in these words: 'The essence of self-government is but the exercise of personal liberty by individuals imbued with moral principles.' The individual's freedom of opinion can be exercised in local matters of public education, for example, how school tax revenue is used, the composition of teaching staff, choice of headmaster, and on-the-spot supervision, through Boards of Public Education, set up under the Education Act.

> Eschewing a centralized administration as it exists in some countries, the proposed Act would entrust first-level management of the general public schools directly to the local community by setting up school management committees, composed of representatives of the local population together with the teacher and local clergyman. At county level the Act provides for the setting up of school councils, thereby also giving the better educated sections of the population a chance to have their say on the educational scene.

As well as the creation of these official bodies, Eötvös recommended the setting up of 'public education associations' in towns and in the provinces where members of the public interested in public education, headed by the leading personages of the area, could discuss local educational issues of topical interest, for example, their schools' financial problems. Membership of these associations would be voluntary.

While introducing novel features and new objectives and methods into the Hungarian education system – central state direction combined with local community management – Eötvös at the same time wished to retain the closest co-operation with those responsible for the running of religious public schools, and in particular with the body responsible for the most respected and widespread network of public schools, the Roman Catholic Church. He enjoined these organizations to keep their schools up-to-date, to set up new ones, and to compete continuously with the state's public schools.

He concluded his speech with the words: 'In adopting this Act we shall be laying the foundations not only of a better public education system, but also of a brighter future for our nation.'

Eötvös's Public Education Act, recorded in the Statute Book as Law 38 of 1868, is a landmark in the history of Hungarian education. Full implementation of its provisions took, of course, several decades; thus a host of problems needed to be solved in the procurement of financial resources, in the school building programme, in the provision of school books and teaching aids, in teachers' training, and in countless other matters. Undeniably, however, as a consequence public school attendance of 6- to 12-year-olds kept rising, literacy increased by leaps and bounds, and the number of those without elementary education among the lower social strata diminished rapidly.

Nor was this confined to the Hungarian population, that is, to those with Hungarian as their mother-tongue. The level of public instruction and elementary education of all nationalities living within Hungary's historic boundaries in the Carpathian basin also rose significantly following the enactment of the Public Education Act of 1868.

But this Public Education Act represents not just a notable step in Hungary's own history of education, nor did it remain merely a powerful educational stimulus to the other nationalities living in the Carpathian basin, it was much rather a document of European significance. Eötvös's Act was in fact one of the first pieces of public education legislation to be passed by a European bourgeois state, making it a milestone in the history of European public education and thus of European cultural history as a whole.

In a progress report published in 1870 – just one year before his death – Eötvös could visualize the way ahead. He advocated, briefly speaking, that in the organization of public education 'all existing barriers between public education in the narrow sense of the word and so-called higher education be removed, and that both life and school be ordered in such a way as to render transition from the lowest to the highest levels of instruction and upward mobility from one level of education to the next as easy as possible.'

This demand encapsulates the fundamental principle of a democratic public education policy as formulated by József Eötvös, eminent reformer, modernizer and developer of Hungarian public education, and potent promoter of his country's social progress. It compressed into a few words a programme that would remain valid for several decades and even during the century ahead, anticipating even the endeavours of contemporary public education and instruction policy.

Works by József Eötvös

As a writer and politician, József Eötvös was the author of numerous poems, novels and plays. In the field of political philosophy, his major work is *A XIX. század uralkodó eszméinek befolyása az álladalomra* [The Influence of the Nineteenth Century's Dominant Ideas on the State], Vol. 1, Vienna, 1851; Vol. 2, Pest, 1854.

His political speeches have been collected and published in several volumes. He dealt with his draft laws on public education submitted to Parliament in 1848 and 1868. He spoke on subjects as diverse as mixed marriages, the freedom of the Jews, the influence of science on life, national minorities and the projects of the Hungarian Academy of Sciences.

Works on József Eötvös

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ERASMUS*

(c. 1467–1536)

Jean-Claude Margolin

The fact that the creators of the Erasmus Programme, which over a number of years now has been bringing an ever-increasing number of European students and teachers together around given subjects of reflection and research, chose to adopt the name of the famous Dutch humanist is assuredly no passing administrative fancy. But Erasmus himself is more often quoted than read despite being almost a household name and despite the title of one of his works (*In Praise of Folly*), not to mention the two portraits left to us by Holbein the Younger. As his life and works are closed books for many, we thought we might usefully direct attention to some of the landmarks in this exceptional life, lived during a period which was not lacking in outstanding personalities.

An outline of his life and work

Erasmus was born without a name in mysterious, if not shameful, circumstances – his father was a priest who had seduced the daughter of a Zevenbergen doctor called Geert – and his destiny continued to be exceptional. He was born in Rotterdam in 1467 (or 1469, 1466 or 1468 depending on the source) and, a few decades later, was to win fame for his town, which in this latter part of the fifteenth century was only a little fishing village, by adding its name to his. The obscure son of Geert (which means 'the desired one' in Dutch) was thus to became famous as Desiderius Erasmus Roterodamus, known subsequently as the 'Prince of Humanism'.[1]

His celebrity raises more questions than it answers for the historian of ideas Erasmus (we shall now call him by the name which he chose for himself, using a Greek verb which means 'to love', perhaps indicating a need to love and be loved) was neither a leader of men nor a great philosopher. Unlike Luther, Zwingli or Calvin, he did not found a religion. He escaped all forms of persecution at a time of civil and international warfare and religious revolution, while his best friends per-

* The author's original title for this essay was: 'Erasme, pionnier de l'Europe de la culture' [Erasmus, Pioneer of a Cultural Europe]. – Ed.

ished on the field of battle or by the executioner's axe, victims of their commitment to a cause. One such example was his best friend Thomas More, the author of *Utopia*,[2] who was Lord Chancellor of England before being beheaded in London in July 1535. Erasmus wrote all his works in Latin, the language of the élite of Europe at that time; he could thus count on only a few thousand readers. Apart from a small number of academics and students, who could claim today to be able to read Erasmus in the original? However this man, who spoke Dutch and German only to innkeepers and servants, wanted the most important books (such as the New Testament, of which he was to produce an original Latin version[3]) to be translated into modern languages so that, in his words, 'the labourer at the plough and the weaver at the loom could pray to God in a language which they themselves could understand'.[4] Erasmus' wish is now being fulfilled beyond his expectations.

Although much still remains to be done, most of his works have been translated into many languages. To cite just one example, the poorest students anywhere in the world can now read a pocket edition in their own language of *In Praise of Folly*, an ironical and at times moving sermon of Dame Folly (who is a mouthpiece for Erasmus himself).

Erasmus, a sickly and extremely sensitive child, was to remain throughout his life in thrall to what he called his 'corpusculum'.[5] He first attended Peter Winckel's school at Gouda, then that of the chapter of the Cathedral of Utrecht where he was a chorister, and lastly, when he was 9 or 10 years old, that of the then famous Brethren of the Common Life at Deventer. From 1480 to 1485, this was one of the first centres of humanism in the Netherlands in which instruction in the Greek and Latin masters was combined with instruction in a Christianity no longer clogged by the scholastic and formalist accretions of the Middle Ages.

The Netherlands then formed part of the Habsburg Empire and, more particularly, with Franche-Comté, of the Burgundian 'sphere of influence'. In the mosaic that then constituted the Holy Roman Empire, Erasmus was thus a subject of Charles of Burgundy who became Charles I of Spain and, subsequently, Emperor Charles V. It is in this context that his love for peace inspired him to address audacious 'remonstrances' to the two enemy kings Francis I and Charles V.

After the death of his parents, the young Desiderius was put in the care of three tutors who quickly sent him to Bois-le-Duc, to a mediocre and 'antiquated' school where, he was later to admit, he had 'wasted his time'. He fled back to Gouda to escape the plague, and in 1487 felt he had a vocation and joined the monastery of the Augustinian canons of Steyn where he took his vows a few years later. But his enthusiasm was lukewarm. Above all, the monastery provided a setting which suited his meditative nature and his craving for culture. He was also to form firm friendships there, especially with a young monk, Servatius Roger, who later became its prior.

Having been ordained a priest on 25 April 1492, he left Steyn to become secretary to the Bishop of Cambrai, Henry of Bergen. He went to Paris in 1495 where he was initially a resident at the austere Collège de Montaigu. Thereafter, he led an independent existence, giving Latin lessons to the sons of rich bourgeois and aristocratic English and German families, writing textbooks which later became teaching manuals, and which certain countries – and schools such as St Paul's School and Eton College in England – were to use for centuries. He had yet to publish anything, but had already established a reputation as an 'orator' and 'poet' in Parisian humanist circles. In 1499 one of his pupils, the wealthy Lord William Mountjoy,[6] took him to England. The course of his life then took a decisive turn thanks to the friendship and respect of some of the most influential figures of the time. He was the guest of the royal family, became a friend of John Colet,[7] a theologian at Oxford and future Dean of St Paul's Cathedral in London, met Thomas More[8] and, subsequently, grammarians, scholars and theologians of the reformist persuasion.

While discovering England and appreciating the hospitality extended to him, Erasmus discovered himself. He became conscious of his worth, and set himself an ambitious schedule of work which was based on the two ideals which would henceforth govern his life: to make the masterpieces of Greek and Latin antiquity accessible to the young scholars who possessed the intellectual gifts and material resources required to attend the 'Latin' schools or to have a private tutor; and to make the riches of the Bible and patristic literature accessible to all the faithful, and, first and foremost, to those responsible for their spiritual guidance. He thus began to study Greek intensively, as well as Hebrew in which he failed to acquire any real proficiency. Many publications and translations were produced in the course of a life[9] which one of his famous adages[10] and a painting by Holbein would compare to the labours of Hercules. These translations were, naturally, translations from Greek into Latin, given that Greek, with rare exceptions, was known to only a handful of scholars (though the number increased after the influx of Greeks from Byzantium into Italy and Western Europe) and was not spoken or written fluently.

The most significant works that he was to write on his return to the Continent in 1500 were in keeping with the two goals that he had set himself in England. He began by publishing 818 *Adages* in Paris.[11] These were proverbs principally derived from Greek and Latin Antiquity, accompanied by his own grammatical, literary, historical and even religious commentaries. For some thirty years these adages were to increase unceasingly in number – over 4,000 in the 1536 edition – and, in the case of most, in length. Examples of the latter are 'The Sileni of Alcibiades', 'Festina lente', 'The Scarab in Pursuit of the Eagle' and 'Dulce bellum inexpertis' or, in other words, 'war is sweet to those who have not known it'. But what is even more noticeable than the number and length of some of the adages, some of which had become full-blown philosophical, social or religious essays, is their increasingly personal character. After first giving an explanation of the historical or mythical origins and the linguistic structure of the Latin or Greek proverb that formed the title (for example, 'man preys on man like a wolf', 'richer than Croesus', 'an ass at the lyre'), he used it as a pretext for personal musings of all kinds. This would result, in one instance, in a picturesque and fanciful essay, in another in the critique of a social or religious institution and, in yet another, in the formulation of audacious views on human relations. Three years later, in Antwerp, he published the *Enchiridion militis Christiani,* or *Manual for a Christian Soldier,*[12] with a pun on the Greek term '*enchiridion*' which, primarily, means 'dagger' and, secondly only, 'a familiar book always within reach'. It contains both advice to Christians to defend themselves, with a spiritual 'dagger', against the temptations of the 'world', and bold personal suggestions for the internal reform of the Church which would reinstate the spirit of the Gospels in a central place, excluding purely superficial practices, an excessive devotion to the saints, outdated formulations, theological disputes and ratiocinations. In short, it is a theological essay strongly inspired by St Paul, but also by Plato and Origen, which constitutes the beginnings of a corpus of precepts and modes of behaviour based on the spirit of the Gospels; what Erasmus was later to call 'the philosophy of Christ'.

Until his death in Basle in July 1536, Erasmus would be forced, for a variety of reasons, to lead a wandering life. His enemies, first among them Luther after their break in 1524/25, called him an *errans mus*, 'roving rat'. He stayed in Louvain, then in Venice and Rome; spent longer periods in Basle, Freiburg-im-Breisgau and, again, in Paris, Orleans and Lyon.

Fleeing the plague in Paris at the beginning of 1500, and having to return to the monastery at Steyn after an absence of several years, he went back to the Netherlands. But it was primarily with the intention of asking for another year's freedom to pursue his studies outside the cloister. At Tournehem, not far from Saint-Omer, he began a 'heroic' study of Greek[13] with his friend Jacques Batt. But he also made fresh travel plans: England, Paris or perhaps Italy? The idea of Italy had been haunting him for years, being for him, as for all humanists, the cradle of Latinity, while Rome was the cradle of Christianity.

In Saint-Omer he met the Franciscan theologian Jean Vitrier,[14] a virulent preacher who inveighed against unreformed religious houses, the profligacy of monks and other clerics, and the worship of saints and images. He was the source of many of the ideas and themes that illustrated the *Enchiridion*. When Vitrier died, Erasmus composed one of his finest funeral orations, both for him and John Colet, who had died about the same time. The text can be found in Letter 1211 of the *Opus epistolarum*.[15] This letter was sent in June 1521 'from the countryside around Anderlecht'[16] to Josse Jonas, the Rector of the University of Erfurt.

Erasmus moved to Louvain in the autumn of 1502, worked intensely and finished his first translations from the Greek, including Lucian and Euripides. As a Habsburg subject, it fell to his lot, in January 1504, to deliver the panegyric of Philip the Handsome, King of Spain, before an illustrious assembly. In this academic speech he took the opportunity to speak in praise of peace. In the summer of that same year, he discovered in the library of the park monastery in Louvain a manuscript by the illustrious Lorenzo Valla,[17] which suggested making corrections to the Vulgate on the basis of collations with the Greek text. This discovery, which was of much more than philological and historical significance, was to be the point of departure for what could be called the biblicism of Erasmus, that is, his biblical exegesis, one of the most sturdy pillars of his 'philosophy of Christ'.[18] Erasmus was to be unrelenting in his efforts 'to reconcile good literature' with theology as envisaged by Valla, that is theology based on the Greek translation from the Hebrew of the Septuagint and not on the traditional Latin translation known as the Vulgate. This work of collating manuscripts, correcting the Vulgate, translating and making commentaries (or 'annotations') was to lead twelve years later to the first edition of the New Testament (*Novum instrumentum*),[19] which he would dedicate to the humanist Pope Leo X, but whose philological and exegetical daring exposed him to violent criticism from traditionalist theologians at the universities of Paris, Louvain and Salamanca, and from many other scholars as well.

Valla, as the author of the *Elegances of the Latin Language,*[20] also enabled Erasmus to fulfil the wish that underlay the second part of his programme to restore the purity of the Latin language. He was in fact to publish a summary of and a commentary on the *Elegances.*

While not ignoring the time spent by Erasmus – who clearly did all he could to avoid returning to his monastery – in Paris and England, or his professional and, at times, friendly contacts with the publishers Badius and Martens, let us now consider his journey to Italy, where he stayed from August 1506 until the summer of 1509. This period marked another turning point in his life and in his intellectual and spiritual evolution, in particular, the time spent in Venice with the celebrated publisher Aldus Manutius[21] and his Academy, attended mainly by Greek scholars from Byzantium who had in their possession a great many unpublished manuscripts. In Venice Erasmus not only improved his knowledge of Greek language and literature, but made many additions to the *Adages,* chiefly due to the Greek authors to whose manuscripts he had access at the Academy. By contrast, his stay in Rome was far less edifying: the luxury of the Papal court, the wealth and magnificence of the cardinals, and the detestable morals of far too many prelates seemed to him to be in flagrant contradiction with the humility preached by the Gospels and the poverty of Christ.[22] And what was he to think of the warrior Pope, Julius II, who marched, wearing helmet and armour, at the head of his troops? An anonymous pamphlet, which historians attribute to Erasmus, entitled *Julius exclusus a coelis* [Julius Forbidden to Enter the Gates of Heaven][23] fully expresses the contempt in which the author held the pontiff. But it was this same Julius II who had granted Erasmus a very useful dispensation and who had sought out Bramante and Michelangelo to construct and decorate St Peter's in Rome! Erasmus was not very sensitive to this type of beauty or to artistic greatness.

Erasmus claimed to have composed *In Praise of Folly*[24] in July 1509 as he crossed the Swiss Alps on horseback while returning to England in short stages at the invitation of the young Henry VIII. In actual fact, he wrote this scintillating, paradoxical work at the end of the summer at the London home of his friend Thomas More, to whom he dedicated it. The title of the work, *Encomium moriae,*[25] is a pun on the name *Morus*, with the result that it is also in praise of More. He was to remain in England for almost three years, making short business trips to the Continent. He gave lectures on Greek and theology at the University of Cambridge[26] where his friend John Fisher,[27] the Bishop of Rochester, was now chancellor. Warham,[28] the Archbishop of Canterbury, provided him with a benefice in Kent which was quickly converted to an annuity. He used these years to prepare his edition of the New Testament and throw himself into patristics (SS. Jerome, Augustine, Chrysostom, Basil, Athanasius, etc.). He began with an edition of the works of St Jerome, the Father of the Church, to whom Erasmus felt closest and of whom he was to write a biography. From London he established contact with the Basle master-printer, Johann Froben,[29] who was to acquire exclusive rights to all Erasmus' works, whether already published or yet to be written. In 1514 he was invited to Basle after a stay in the southern Netherlands and an ecstatic journey up the Rhine which he described as 'the light of life'. In the same way that he had appreciated the company of scholars who frequented the workshop of Aldus Manutius in Venice, in this dynamic Rhine city, which had just acquired a large university and was a major economic centre, he not only made friends – among them the Frobens, the Amerbachs, the painter Holbein, the Alsatian Beatus Rhenanus – but also established very useful professional relationships (often with the same people). They could be the young people, *famuli*,[30] who transcribed his texts and ran errands in search of manuscripts for him in exchange for board and lodging and a few lessons from the master, or scholars of Hebrew such as Capiton, who introduced him to that language.

The years 1515 and 1516 – which witnessed the accession to the French throne of the young Francis I and to that of Spain of the Duke Charles, to whom Erasmus had just been appointed counsellor – marked an improvement in the political situation in Europe. Erasmus took advantage of this situation, on his return to Brabant, to write pacifist works which were not merely in tune with the times but had universal significance. Outstanding among them was the *Institutio principis Christiani* [The Education of the Christian Prince] (1516),[31] a subject which had been suggested to him by the Chancellor of Brabant, Jean Le Sauvage, who wanted to encourage peace between the two nations. In a dozen or so chapters, Erasmus produced a veritable manual for the all-round education of the Christian prince, encompassing intellectual, moral and political instruction, without forgetting religion, which was at the very heart of this treatise.

But the peace was to be short lived, promptly vindicating the prosopopoeia to which he gave the title *Querela Pacis* [The Complaint of Peace], who is made unwelcome wherever she goes.[32] Other storms were looming on the European horizon, and their effects can still be felt more than 400 years after they first broke over Germany and gradually spread to most of the countries of northern and central Europe: the violent challenge to the Church of Rome and its abuses under Luther's aegis[33] and, more generally, by the Reformation, when other intellects attacked the dogma and practices of Catholicism, or 'popery'. It is well known that Erasmus was said to have 'laid eggs which Luther hatched', a statement that more or less reflects reality. At first Erasmus and Luther, the former Augustinian monk, were on very good terms: they both wanted a return to the teaching of the Gospels; they both criticized sterile scholasticism; they both ardently desired a radical reform of the Church; and they both opposed the sale of indulgences. But after Luther's break with Rome, his excommunication and the excesses of all kinds, in word and deed, of his most radical disciples, Erasmus felt obliged to review his position. The need for this was all the more urgent as the best qualified representatives of the Church of Rome were urging, if not forcing, him to choose sides. This was done, reluctantly, by the peace-loving Erasmus, for whom the love of Christ and Christian fellowship took precedence over even the most venerable dogmas, including that of the eucharist and of original sin, and who would not allow himself to persecute a heretic. The final break came in 1524 with the publication in Basle of the treatise entitled *De libero arbitrio* [On Free Will][34] in which he defends the thesis of human freedom and human co-operation with God, with the creature aspiring to salvation, and by Luther's scathing rejoinder in 1525, in his thesis entitled 'De servo arbitrio' [Concerning the Bondage of the Will],[35] which states that human beings are slaves of sin and that only the unfathomable will of God can deliver them from their fundamental misery.

Together with his theological writings and books concerning particular aspects of the 'philosophy of Christ' on which he concentrated his attention during the final years of his life ('Preparing for Death',[36] 'The Prohibition of Meat-Eating',[37] 'How to Confess',[38] etc.), Erasmus continued with his editing and translation of the 'ancients' and the Fathers of the Church, revised his translation of the New Testament, and added to successive editions of his collection of *Colloquia*,[39] one of his major works, composed of animated discussions between two or more characters. Theoretically intended for students, these texts deal frankly and forthrightly with the most controversial social, political, economic, educational, religious, and even medical, issues of the day.

When, exhausted by illness and shattered by the wars that had broken out in Europe with renewed vigour – the sack of Rome in 1527, the invasion of Hungary by the Turks, the siege of Vienna in 1530 – and disappointed by the repeated failures of attempts to reconcile all the 'separated brothers' with the Church of Rome, Erasmus came back to die in Basle where he had so many friends, it was after having accomplished a truly Herculean task. But it was only little by little, and despite periods of eclipse and the Catholic censorship which was to put all his works on the Index (as did the Roman Index of 1559 which was promulgated by Pope Paul IV), that the prediction made by his friend Colet: *'nomen Erasmi nunquam peribit'* (the name of Erasmus will never perish) came to be vindicated.

The tutor of Europe

The works of Erasmus are so wide ranging and varied in both content and form, and often the first edition published in his lifetime is so different from the last – the first edition of his *Opera omnia*, published by Froben in Basle in 1540, comprises ten large folio volumes, while the Amsterdam critical edition, now being published, will comprise over fifty volumes – that it is not easy to identify a focal point or guiding principle for his work. It is, of course, possible to consult the catalogue of his works that Erasmus himself compiled in 1523 for the benefit of his friend Jean Botzheim,[40] or the one that he completed seven years later for Hector Boece.[41] The works they list could then be divided, as Erasmus himself considered doing, into, for example, a first volume composed of the works dealing with education, a third containing his correspondence, a fifth comprising devotional and religious works[42] and a sixth entirely devoted to his translation of the New Testament, with his Annotations. The eighth could comprise the *Apologia*, *pro domo* pieces written to counter attacks by declared or secret enemies, who resented the boldness of his philosophical and theological positions on marriage, the worship of the saints and the Virgin, the rejection of the Vulgate, etc.

In fact, it would be no overstatement to say that all of Erasmus' works, in which he wielded words like weapons – the only ones he would allow – in lifelong combat, are a defence and illustration of liberal education. Erasmus was first and foremost an educator or, as I prefer to call him, 'the tutor of Europe'[43] (just as his friend, the Lutheran Melanchthon,[44] was called 'the tutor of Germany'). It is on this aspect of his work that his considerable reputation rests today.

The titles and contents of many of Erasmus' works do, indeed, deal with education and form the first volume of his *Catalogus lucubrationum* of 1523 and 1530: the *De ratione studii* [Study Plan] (1512),[45] composed at the request of John Colet who had just opened a new type of Latin school in London; the *De pueris instituendis* [On a Liberal Education for Children] (1529),[46] written for the young Prince William, Duke of Cleves; the *Institutio principis Christiani* [The Education of the Christian Prince] (1516), dedicated to the young Charles of Habsburg; the *Christiani matrimonii institutio* [Institution of Christian Marriage] (1526), and a poem bearing the title 'Institutum hominis Christiani' [Education of the Christian Man] (1514).

This list could also include works which were originally written for his own pupils and whose publication, some time afterwards, benefited all Europe's young people, as each and every country had its schoolmasters who would obtain this or that edition or adaptation, and its publishers, who took his works to the annual and biennial trade fairs, such as the one in Frankfurt. This category would include works such as the *De duplici copia verborum ac rerum* [The Twofold Abundance of Words and Things][47] which deals with rhetoric, grammar and syntax, style and Latin elegance; the *De conscribendis epistolis* [On Letter-writing],[48] an absorbing manual on the art of writing, which draws on the best sources of ancient (Cicero, Pliny the Younger, Seneca) and modern (Politian, Vergerio, Filelfo) Latinity and which can be compared with Erasmus' own copious correspondence (over 3,000 letters by Erasmus and his correspondents have survived);[49] the *De recta Latini Graecique sermois pronuntiatione* [On the Correct Pronunciation of Latin and Greek][50] which expands a philological and cultural point into a mini-study in comparative philology; the Latin translation of the *Grammar* by the Byzantine Greek Theodore Gaza, in co-operation with the Englishman William Lily;[51] and all his translations of Lucian of Samosata,[52] many of which comprise 'declamations', that is, rhetorical exercises on imaginary subjects which were given to pupils as models. In this category of works of rhetoric with an explicitly educational purpose (even if Erasmus took the opportunity to slip in the odd ironical remark on this or that individual or institution), one could include the *Parabolae sive similia* [Comparisons or Similarities][53] which consist of hundreds of short texts by Greek and Latin authors (primarily Plutarch, Pliny the Elder and Seneca) involving two orders of reality or meaning which are usually quite far removed from each other (such as this example from Seneca: 'A ship that is large for a river looks small at sea; in the same way, people thought to be mediocre here can be regarded as outstanding elsewhere'). One could put into this same category his *Ciceronianus*,[54] a dialogue on literary style and imitation and, at a deeper level, a very profound reflection on culture and the adaptation of a given cultural tradition to a new type of civilization. Lastly, but the list could be extended further, the short text published in 1530, *De civilitate morum puerilium* [On the Civility of Children's Behaviour],[55] which can be considered to be the first treatise in Western Europe on the health, moral and practical education of very young children. In it the bachelor priest concerns himself with matters as apparently trivial as the art of wiping one's nose, cutting one's bread, dressing and undressing! For him education was all-encompassing. One of his books bore the title *De pueris statim ac liberaliter instituendis* [Children Should Be Given a Liberal Education from a Very Early Age], immediately followed by the programme proposed: *ad virtutem et bonas litteras instituendi* (so that they can acquire virtue and a literary education).

These titles alone would seem to indicate that Erasmus saw himself, or indeed was, the tutor of Europe. But we can go further and say that Erasmus' works are united in their diversity[56] and that the common denominator of all his writings, the focus of all his efforts, is education. There is, however, a paradox here which occurs quite often where education is concerned: this European schoolmaster, who on several occasions was given responsibility for the education of young people – in Paris and Cambridge, in Italy, notably in Siena, not to mention the education of his godson in Basle, the son of his friend John Froben, and in Louvain – was not overly fond of this occupation and does not seem to have been a very gifted teacher. This would have been difficult to understand if Erasmus had been dealing with intelligent and industrious young people. But when he came up against persistent stubbornness – and such was the case with his godson, to whom he none the less dedicated an edition of his *Colloquia*[57] – he felt he was wasting his time and decided he could do more for the education of young people by writing works that would be rapidly circulated throughout Europe rather than by spending precious hours endeavouring to raise the moral and intellectual level of a few recalcitrant individuals. We might add that he made little effort to win over his average pupil. In England, he refused, even when not giving lessons, to speak English, a language that he never had any desire to learn. Today we would say that Erasmus' temperament was more that of a researcher than of a teacher; but his writings made him an excellent educational adviser and an admirable theoretician of practical pedagogy.

In fact, the methods expounded in his major educational works are surprisingly modern, not only in their historical context in that they broke with the scholastic methods of the Middle Ages which were based on learning by rote and the servile imitation of models considered to be immutable, even in a modern educational context. Examples of his methods are a progressive training in literary 'invention' and in the acquisition of a personal style by studying different writers and adopting a critical approach to them, be they Plato or Cicero; the preference given to individual tuition over a collective education that takes no account of differences in the characteristics and aptitudes of the learners; the use of competition when exercises are given to children or young people, the best being singled out without triumphalism; the abolition of the barbarous and stupid habit of physically punishing talkative or careless children, and humiliating those who come bottom of the class by making them wear the dunce's cap.

We should, naturally, be careful not to overemphasize the relevance of Erasmus' ideas about teaching methods to the present day. Times have changed since the sixteenth century, and the conditions and objectives of education have changed too. Latin no longer forms the basis of education; nor even do the 'humanities', as they used to be called. The 'hard' sciences, like mathematics, physics and biology – not to mention electronics and computer programming – have revolutionized the cultural, social, economic and even the political landscape. The time is now past when Erasmus could write nonchalantly about pupils' interest in arithmetic: 'As long as they've had a taste of it!'[58]

And although Erasmus had rather advanced views on women and marriage, the education of girls and the role of women in our modern societies have changed radically since his time. Erasmus shared the view of all his contemporaries, educationists included (such as the Spaniard Juan Luis Vives[59] and the Englishman Thomas Elyot[60]) which was that girls had no need of advanced intellectual education since their lot was either to marry, have children and keep house, or to enter a convent. None the less, he admires Magdalena, the educated woman in one of his *Colloquia*,[61] who comes up with lively rejoinders to Antronius, a stupid anti-feminist abbot. Erasmus often sings the praises of extremely cultured 'viragins' such as the Venetian Cassandra Fedele and Margaret, the eldest daughter of Thomas More.

One final point concerns what in modern parlance would be called the democratization of education, that is, the access of every child to instruction and education. In Erasmus' day only a very small minority of children and young people had such opportunities. Erasmus preferred education at home under the guidance of a tutor carefully chosen by the parents. When asked: 'What will you do with poor children?' he would quote Terence: 'When we can't do what we want, we do what we can.' He realized that there was a problem, and his own tormented childhood was a sharp reminder of all the difficulties that even gifted children had to overcome.

For Erasmus, to educate young people was to educate adults, inasmuch as – and this he deeply believed – the future of individuals and the quality of their lives depended, in large measure, on the education they had received in their youth. 'A man is not born a man, but becomes one', is the vigorous assertion of one of the sayings in the *De pueris*[62] whereby Erasmus distinguishes man from all other creatures. A dog remains a dog and an oak an oak, because they are no more than that with which nature has endowed them, once and for always. But human beings, thanks to the reason with which God endowed them when He created them, can improve their primitive nature: education will achieve this on condition that it is 'liberal', which means based on free will (which even children possess), and that the tutor has the wisdom and skill to use persuasion and gentleness, rather than brutally imposing precepts and dogmas.

Even during his lifetime, the many reprints and translations of his works formed the basis of a veritable Erasmian network in Europe which extended from London to Kraków, Antwerp to Alcalá de Herares, Paris to Strasbourg, and Nuremberg to

Naples, with Basle as its centre. The Prince of Humanism was truly the tutor of Europe.

A teacher and educational adviser to the schoolmasters of his time, Erasmus became, by vocation and also because circumstances required it of him, the theoretician at one and the same time of a political philosophy based on peace and the protection of the people by their prince, of a code of religious ethics concerning the status of women, and of a renovated theology based on scrupulous interpretation of the Gospels and on rhetoric, which is used by the preacher in the exercise of his function. We shall now examine these three aspects of Erasmus' educational vocation.

The innovative pacifist

Erasmus was a militant supporter of peace[63] who took every opportunity 'to wage war on war' and continually maintained that there was no such thing as a just war. In the turbulent period in which he lived – even if he always managed to flee regions threatened by or embroiled in war – he found a great many situations to support his views. These were simple; politicians inspired by Machiavelli might say they were simplistic. They can be summed up in a few points which are made in the *Institutio principis Christiani*.[64]

THE CHRISTIAN PRINCE

Erasmus could envisage none but a prince who was a Christian in a Europe that had not as yet adopted the name, or if it had, gave it no political significance. Even the Habsburg Empire was not in a position to impose federative unity, even though it occupied a large part of the European continent and took precedence over all the kingdoms of Europe. Not only was the Emperor not in full control of his own territories – especially those that were called the imperial cities, not to mention the mosaic of peoples and nations who hated each other cordially and were waiting for the first opportunity to 'fight it out' – he also had to keep a watchful eye on powerful rivals like Francis I and Henry VIII who were potential candidates for his throne. For Erasmus and his contemporaries, Europe was, above all, Christendom. Even though torn apart by the Lutheran schism and the transfer of whole territories to the Reformation camp, it was still Christendom as opposed to the Ottoman Empire, whose extension in eastern and central Europe was posing a great threat to Christianity.

Although a pacifist, Erasmus was aware of the limitations of pacifism. He taught and wrote – in *Querela Pacis*, the adage 'Dulce bellum',[65] the colloquy 'Militaria',[66] and in his letters to the European princes – that war did as much, if not more, harm to the victors as to the vanquished, and that the victims in either camp were always in the ranks of the common people and never, or almost never, among those who had started the war. But, at the same time, he made an exception for self-defence. This was the gist of the reply he gave in 1530 to the German jurist Rinck who had consulted him on whether or not war should be waged on the Turks, who already controlled a large part of Hungary and were encamped outside Vienna. This letter is written in the form of a commentary on David's Psalm 28[67] which extols the virtues of peace (Verses 7 and 8: 'The Lord is my strength and my shield; my heart trusted in him. . . . The Lord is their [the people's] strength, and he is the saving strength of his anointed'). This implies that, for Erasmus the Christian, the nature of the problem of war and peace is, first and foremost, religious and, more particularly, Christian, and only secondarily political. If, after having exhausted all the resources of diplomacy and agreed to all the concessions compatible with freedom, dignity and the preservation of his people's fundamental values, a prince is still directly threatened by a brutal and uncompromising enemy, he can then take up arms to defend himself. It is indeed his duty, as he must protect his subjects in the same way as he must defend their spiritual and material goods.

He is not to fight 'like a Turk', however, since Christians are expected to observe certain rules even when at war. Thus, civilian populations should be respected, prisoners treated humanely, and all barbarous and degrading acts avoided. In other words, war should never be waged with 'no holds barred', it should be short, if possible, and involve minimal bloodshed. Some will think that this is utopian, given the atrocities perpetrated in the course of our own twentieth century, and particularly at its closing, which clearly flout the Erasmian desire to humanize war. Not so! To present the adage 'man preys on man like a wolf' as the law governing relations between people and nations would be tantamount to negating the efforts that have been made over the centuries: by jurists like Grotius and Pufendorf who established the laws of war and peace, by the International Red Cross, the League of Nations, the United Nations and UNESCO, not to mention humanitarian associations and charitable institutions of all kinds.

Erasmus' faith in education is made clear in his analysis of the main causes of conflict, his basic position being that prevention is better than cure. The causes that he identifies are various and, in general, of a psychological nature: the ambition of a sovereign avidly seeking military glory and wishing to extend his territory; the weakness of a prince who is incapable of disregarding unscrupulous, greedy and ambitious councillors who vie with one another to flatter him; an old injustice never forgotten, for which crushing revenge is craved. In addition to these psychological factors, which Erasmus attributed to diabolical passions and instincts uncontrolled by reason or Christian piety, there is the weight of historical tradition: for instance, dynastic marriages.[68] Instead of marrying a girl of noble birth in his own country, the prince would contract a marriage outside his borders to gain dominion over other peoples or territories, or to avoid foreseeable conflict. But this is quite the opposite of good policy; peoples do not easily conclude alliances with men and women who do not speak their language, who dress differently or have a different diet, and do not share their beliefs. In short, the prince – which means all the princes of Europe – must follow the teaching of the Gospels, whose many precepts, he tells us, come down to two, and perhaps even one: peace and concord.[69]

The status of women

The advice given by Erasmus concerning the education of women during the different stages of their lives, as girls, wives, mothers and widows, depending on the social class to which they belong, is scattered throughout much of his work, more particularly in *In Praise of Folly,* the *Colloquia* (five or six of which deal with marriage,[70] freedom of choice, religious vocation, divorce, etc.), 'Encomium matrimonii' [In Praise of Marriage],[71] 'Christiani matrimonii institutio' [The Institution of Christian Marriage],[72] and 'Vidua Christiana' [The Christian Widow].[73] The question of women and their marriage was a matter of great concern in those times of social and religious change. While the humanist Agrippa of Nettesheim proclaimed the 'precellence' of women over men[74] (although, as his work belongs to the declamatory genre, one wonders how seriously the author took this rhetorical exercise) and Margaret of Navarre wrote her *Heptaméron,*[75] theologians continued to maintain that the most noble estate for a woman was that of a virgin or, better still, a virgin consecrated to God. These same theologians asserted that a widow could not remarry, despite the fact that canon law was not absolutely opposed to it, as she could not belong to two men. This was certainly not the opinion of enlightened individuals like Erasmus who could think of examples, including that of Thomas More, whose second marriage was to a widow.[76] As to virginity, he believed that it was more a moral and spiritual than a physical state, and he did not think that a girl who entered a convent under family or social pressure would lead a more edifying life than a young woman who had married the man of her choice.

He was much occupied with the question of marriage and how to prepare for it. Some people might see in this the persistence of the trauma inflicted upon him by his parents' situation and the circumstances of his own birth. Erasmus, who was a reader of Galen, Hippocrates and the *Moralia* of Plutarch, who was concerned about questions of personal hygiene, healthy nutrition and clothing, and who shared in the tradition of the medical school of Salerno, often declares that good physical and moral health has to be prepared not from a child's birth, but many years before, during the education of its parents. Neither he nor any of his contemporaries had any conception of what was to be called, in the nineteenth and twentieth centuries, 'genetics', but he sensed the close relationship between the character and physical traits of an individual and his dual ancestry. In a personal interpretation of the First Epistle of St Paul to the Corinthians,[77] he also develops interesting ideas on the relationship between marriage and sexuality which, unlike the Church Fathers who were often ferocious misogynists, he holds to be natural and innocent.

Erasmus was also to write as a matrimonial adviser, producing, for example, an 'Encomium matrimonii'[78] which his adversaries immediately interpreted as a challenge to monasticism and an attack on celibacy. Defend himself as he might, claiming that this 'Encomium' was merely an exercise in rhetoric and argumentation, and that he had composed it at the same time as an 'Epistola dehortatoria' [Epistle Against Marriage][79] which contains the opposite case, the reader is not so easily fooled. Not only does the praise of marriage take up much more space than the criticism, but there is a persuasiveness in the former that is absent in the latter exercise.

The teacher of theology

As an educator of women and the family, in lieu of establishing one of his own, Erasmus also saw himself as a teacher of theology for future preachers. In a number of texts, and more especially in the prefaces to his different editions of the New Testament, in that of the *Enchiridion* of 1518 which is entitled 'Letter to Paul Volz',[80] and his 'How to Confess', he establishes the rules for a new theology. Having himself wrested a doctorate from the University of Turin with doubtful dispatch, he did not feel that theology was the preserve of specialists.[81] Those who wish 'to talk of God' do need to be well versed in the study of patristics, to know something about the history of the Church and the great councils which, little by little, gave it its character. But, above all, Erasmus thought – and it is in this that he is a revolutionary – that ordinary believers could become theologians of a kind if they were thoroughly versed in the Gospels and put their precepts into practice. That scholars 'disputed' dogmas, well and good! The *credo* of good Christians was, above all, based on their faith, on their love of God and humankind, and their belief in the eternal life towards which all their efforts in this world should be directed. This is the idea Erasmus develops in his 'Confabulatio pia' [Pious Conversation],[82] in which he makes the little Erasmius, his godson, converse with another child called Gaspar.

> *Erasmius*: So, what is religion?
> *Gaspar*: It is the worship of God in His purety, and the observation of His precepts.
> *Erasmius*: And what are they?
> *Gaspar*: It will take a long time to say, but I can summarize them in four points.
> *Erasmius*: What are they?
> *Gaspar*: First of all, to feel devotion to God and the Holy Scriptures; not to fear Him as one would a master but rather to love from deep within the heart the most benevolent of fathers. Second, to protect innocence with extreme solicitude. Third, to practise charity, which means helping everyone as circumstances require. Fourth, to remain constant in one's ability to endure anything.

But, despite the fundamental importance of these precepts within the context of the Gospels, they are not sufficient for the training of preachers, priests and teachers of theology. This is why Erasmus constantly advocated the study of languages – that is, the three basic languages, Latin, Greek and Hebrew – which would make the trainee theologian an experienced philologist. But, unlike the commentator or translator of profane authors whose texts do not bear the mark of divine inspiration, the commentator of sacred texts must be aware of the rich multiplicity of meanings of Holy Scripture.[83] Hence his recommendation to observe in the reading of the Gospels the doctrine of the four senses inherited from the Middle Ages: the historical or literal sense; the tropological or moral sense; the allegorical sense; and the anagogical sense. Erasmus, a born educationist, always kept to essentials and very often reduced these four senses to two: the literal or historic sense and the allegorical or spiritual sense.

Erasmus wrote an enormous work on the training of preachers, who played a very significant role at the time, with the mass of the faithful thronging around their pulpits, in the *Ecclesiastes* or *De ratione concionandi* [The Sacred Orator or the Method of Preaching][84] which dates from 1535. Once again, the philologist and the 'philosopher of Christ' come together in this reconciliation, which he constantly recommended and practised himself, of profane with sacred literature. This work can be seen as the crowning achievement of Erasmus' career. He was convinced that truth needed to be communicated and transformed into belief in the hearts and minds of the faithful,[85] and he gives the future preacher all the advice he could need, including individual and crowd psychology, as well as the rules of rhetoric, to be effective: the art of argumentation, the controlled use of metaphor and allegory, clarity and simplicity, the appropriate use of examples, use of pathos, indignation, pity, etc. It is an undeniable masterpiece, a combination of all the knowledge and intuition of the Prince of Humanism.

Having briefly outlined the life and thought of the obscure Dutch child who was for so long roughly treated by life before becoming, at age 40 to 45, the cynosure of Europe, I should like to emphasize particularly his unwavering fidelity to the principles he had set himself. Although he could change his attitude or language to suit the occasion or the people he was dealing with, he never gave ground on essential points. A lover of truth, he never wished to belong to any faction, sect or school that only observed one aspect of this truth. Indeed, he indignantly rejected the expressions 'Erasmians' or 'Erasmists' which were used to describe his followers. Although the famous motto *'Nulli concedo'* [I make concessions to no one] on the medal which Quentin Metsys[86] engraved for him was that of Terminius, the god of death, I do not think it would be a misrepresentation of this essay to apply it to Erasmus himself. Far from being a token of pride, I see it rather as the motto of a courageous and dignified man who was incapable of straying from the straight and narrow path. His great friend, Thomas More, carried this principle to the point of martyrdom. Erasmus was not called upon to show how far resoluteness in word and thought would have led him if he had found himself in the same situation as his friend. What we do know about him through his writings and the testimony of those who knew him well makes us reject the image of a dry academic or chilly scholar reluctant to take a stand or commit himself. When barbarism is rampant, does not true courage often lie in refusing to come down on any side in unceasing exhortations of: 'Stop the barbarians!'? This is what the author of the *Antibarbari*[87] did, at all times, in an endless variety of ways

Notes

1. The reader is referred to a number of fairly recent monographs: J.-C. Margolin, *Erasme par lui-même*, Paris, Le Seuil, 1965; P. Mesnard, *Erasme ou le christianisme critique*, Paris, Seghers, 1969; L. E. Halkin, *Erasme et l'humanisme chrétien*, Paris, Classiques du XXe Siècle, 1969; L. E. Halkin, *Erasme parmi nous*, Paris, Fayard, 1987 (English, German and Italian trans.); C. Augustijn, *Erasmus von Rooterdam: Leben, Werk, Wirkung*, Munich, C. H. Beck, 1986 (original version in Dutch, Baarn, 1986).

2. Original edition: Louvain, 1516.
3. First edition (there were to be five, each one with many changes): *Novum instrumentum*, Basle, Froben, 1516.
4. See text in *Paraclesis*, in J. Chomarat (ed.), *Erasme, Œuvres choisies*, p. 451, Paris, Hachette, 1991.
5. See J.-P. Vanden Branden, 'Le *corpusculum* d'Erasme', in *Actes du Colloque international Erasme, Tours, 1986* (studies compiled by J. Chomarat, A. Godin and J.-C. Margolin), pp. 215–31, Geneva, Droz, 1990.
6. Concerning this personality, as with all the contemporaries of Erasmus who left their mark on history, see P. Bietenholz (ed.), *Contemporaries of Erasmus*, Toronto, University of Toronto Press, 1985–87; on William Blount, Lord Mountjoy, see Vol. 1, pp. 154–6.
7. On Colet, see ibid., Vol. I, pp. 324–8.
8. In addition to their correspondence, much has been written on the relations between Erasmus and Thomas More. To cite just one example, the review *Moreana* by the Abbé G. Marc'hadour, which now runs to over 100 issues (Angers, 1963 and following years), contains many articles on the subject. A profile of More appears in the third volume of the present series.
9. For a bibliography of the works of Erasmus, see F. Vander Haeghen, *Bibliotheca Erasmiana: Catalogue of the Works of Erasmus*, Ghent, 1983, 3 vols. (photomechanical reproduction, Nieuwkoop, B. de Graaf, 1961).
10. 'Herculei labores', ad. 2001 (Leiden, *Oper omnia*, 1703–06, Vol. 2, col. 707D).
11. Published by Jean Philippi in June 1500. See Margaret Mann Phillips, *The 'Adages' of Erasmus*, Cambridge, Cambridge University Press, 1964; critical edition of *Erasmi opera omnia*, Amsterdam, North-Holland Publishing Company (in press).
12. Published by Thierry Martens in 1503. French translation by A. J. Festugière, Paris, Vrin, 1971.
13. See J. Hadot, 'Erasme à Tournehem et à Courtebourne', in *Colloquia Erasmiana Turonensia*, Vol. 1, pp. 87–96, Paris/Toronto, Vrin/University of Toronto Press, 1972.
14. On Vitrier, see Bietenholz, op. cit., Vol. 3, pp. 408–9.
15. P. S. Allen et al., *Opus epistolarum Desiderii Erasmi Roderodami*, Vol. 4, pp. 507–27, Oxford, Oxford University Press, 1906–58.
16. See J.-P. Vanden Branden, 'La Maison d'Erasme et son histoire', *Terre d'Europe* (Brussels), No. 34, June 1969, pp. 47–52.
17. On Erasmus and Valla, see J. Chomarat, *Grammaire et rhétorique chez Erasme*, pp. 225–65, Paris, Belles-Lettres, 1981; see also S. Camporeale, *Lorenzo Valla: Umanesimo e teologia*, Florence, Istituto Palazzo Strozzi, 1972.
18. See G. Chantraine, *'Mystère' et 'Philosophie du Christ' selon Erasme*, Namur/Gembloux, Bibliothèque de la Faculté de Philosophie et Lettres de Namur, 1971.
19. See Note 3 above.
20. Lorenzo Valla, *Oper omnia*, Vol. 1, pp. 1–235, Basle, Henri Petit, 1540, 2 vols.
21. See Bietenholz, op. cit., Vol. 2, pp. 376–80; see also J. C. H. Lowry, *The World of Aldus Manutius*, Oxford, Basil Blackwell, 1979.
22. See, *inter alia*, A. Chastel, 'L'ennemi de la magnificence', *Dix conférences sur Erasme*, pp. 161–8, Paris/Geneva, Champion-Slatkine, 1988.
23. Text in W. K. Ferguson, *Erasmi opuscula*. A supplement to *Opera omnia*, pp. 38–124, The Hague, Nijhoff, 1933.
24. See the critical edition by C. H. Miller, *Erasmi opera omnia*, IV-3, Amsterdam, North-Holland Publishing Company, 1979.
25. *Moria* = *stultitia* (madness).

26. See D. F. S. Thomson and H. C. Porter (eds.), *Erasmus and Cambridge*, Toronto, University of Toronto Press, 1963.
27. See Bietenholz, op. cit., Vol. 2, pp. 36–9.
28. Ibid., Vol. 3, pp. 427–31.
29. Ibid., Vol. 2, pp. 60–4.
30. See F. Bierlaire, *La* familia *d'Erasme*, Paris, Vrin, 1968.
31. Published in Basle by Froben, April/May 1516.
32. Basle, Froben, December 1517.
33. The literature on Luther is immense. To cite just one work, J. Delumeau, *Le cas Luther*, Paris, Desclée de Brouwer, 1983; see also *Naissance et affirmation de la Réforme*, Paris, Presses Universitaires de France, 1968.
34. French translation by A. Godin in *Erasme*, Paris, Robert Laffont, 1992.
35. *Werke*, Weimar critical edition, Vol. 18, pp. 600–787.
36. French translation by C. Blum in *Erasme*, op. cit.
37. *De interdicto esu carnium*, Basle, Froben, 1522; French translation by R. Galibois, Montreal, Editions Cosmos, 1971.
38. *Exomologesis sive modus confitendi*, Basle, Froben, October 1524; *Erasmi opera omnia*, op. cit., V-1, 1977.
39. See: F. Bierlaire, *Erasme et ses colloques: le livre d'une vie*, Geneva, Droz, 1977; *Les colloques d'Erasme: réforme des études, réforme des mœurs, et réforme de l'Eglise au XVIe siècle*, Paris, Belles-Lettres, 1978.
40. Allen et al., op. cit., Vol. 1, pp. 1–45: i.e. *Catalogus omnium Erasmi lucubrationum*. The letter to Botzheim heads the first of the twelve volumes.
41. Ibid., Vol. 8, pp. 372–7 (Letter 2283).
42. See J. O'Malley, 'Grammar and Rhetoric in the "pietas" of Erasmus', *Journal of Medieval and Renaissance Studies* (College Station, N.C.), Vol. 18, No. 1, 1988, pp. 81–98.
43. J.-C. Margolin, *Erasme, précepteur de l'Europe*, Paris, F. Bourin, 1994.
44. On Melanchthon, see Bietenholz, op. cit., Vol. 2, pp. 424–9.
45. Basle, Froben, 1529; see French edition translated by J.-C. Margolin, Geneva, Droz, 1966.
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47. Critical edition by B. I. Knott, *Erasmi opera omnia*, op. cit., I-6, 1988.
48. See critical edition by J.-C. Margolin, *Erasmi opera omnia*, op. cit., I-2, 1971, pp. 153–579.
49. In addition to the above-mentioned critical edition of Allen et al., op. cit., see L. E. Halkin, *Erasmus ex Erasmo*, Aubel (Belgium), Ed. Gason, 1983.
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53. See critical edition by J.-C. Margolin, *Erasmi opera omnia*, op. cit., I-4, 1975, pp. 1–352.
54. *Dialogus, cui titulus Ciceronianus, sive, de optimo dicendi genere*, Basle, Froben, 1528. See edition by A. Gambaro (with Italian trans.), *Il Ciceroniano* . . ., Brescia, La Scuola, 1965.
55. Basle, Froben, 1530. French translation by A. Bonneau, Paris, Isidore Liseux, 1977.
56. See J.-C. Margolin, 'Unité et diversité dans l'œuvre d'Erasme de Rotterdam', *Protrepticon* (Milan), 1989, pp. 67–80.

57. See critical edition by Halkin et al., *Erasmi opera omnia*, op. cit., I-3, 1972; the dedication to Johannes Erasmius Froben dates from 14 March 1522 (pp. 123–4).
58. See Cytowska, op. cit., p. 31.
59. See monograph written on Vives by A. Guy, Paris, Seghers, 1972, and Bietenholz, op. cit., Vol. 3, pp. 409–13. See also C. Noreña, *Juan Luis Vives*, The Hague, Martinus Nijhoff, 1970. A profile of Vives appears in the fourth volume of the present series.
60. See T. Elyot, *The Boke Named 'The Governour'*, London, 1531.
61. 'Abbas et erudita', in: Halkin et al., *Erasmi opera omnia*, op. cit., I-3, pp. 403–8.
62. 'Homines non nascuntur, sed effinguntur', ibid., I-2, p. 31, 1.21.
63. See J.-C. Margolin, *Guerre et paix dans la pensée d'Erasme de Rotterdam*, Paris, Aubier, 1973.
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65. *Opera omnia*, Leiden, 1703–06, Vol. 2, col. 951A et seq. See the Latin text and its Italian translation in S. Seidal Menchi, *Erasmo di Rotterdam: Sei saggi politici in forma di proverbi*, pp. 196–285, Turin, Einaudi, 1980.
66. Halkin et al., *Erasmi opera omnia*, op. cit., pp. 154–7.
67. A. G. Weiler (ed.), 'Consultatio de bello Turcico', in *Erasmi opera omnia*, op. cit., V-3, 1986, pp. 1–82.
68. See E. V. Telle, 'Erasme et les mariages dynastiques', *Bibliothèque humanisme et renaissance*, Vol. 12, pp. 7–13, Paris, Vrin, 1950.
69. He uses these very words (*pax et unanimitas*) in a prefatory letter to Jean Carondelet, the Archbishop of Palermo (see Allen et al., op. cit., Vol. 5, No. 1334).
70. Concerning these philogamic colloquies and Erasmus' treatment of the question of marriage, see E. V. Telle, *Erasme de Rotterdam et le septième sacrement: Étude d'évangélisme matrimonial au XVIe siècle et contribution à la biographie intellectuelle d'Erasme*, Geneva, Droz, 1954.
71. 'Encomium matrimonii'. See critical edition by J.-C. Margolin, *Erasmi opera omnia*, op. cit., I-5, 1975, pp. 333–416.
72. 'Christiani matrimonii institutio', *Opera omnia*, Vol. 5, col. 613–724, Leiden, 1703–06.
73. 'Vidua Christiana', ibid., col. 723C–766E.
74. *De nobilitate et praecellentia foeminei sexus . . .*, Antwerp, 1529. (See also edition and French transl. by Antonioli et al., Geneva, Droz, 1990.)
75. See the S. de Reyff edition, Paris, Garnier-Flammarion, 1982.
76. See the description given by Erasmus of Thomas More in his family setting in a letter dated 23 July 1519 to Ulrich von Hutten, in Allen et al., op. cit., Vol. 4, No. 999.
77. See Paraphrase on 1 Cor. vii. 4, in which Erasmus discusses the point of view of St Augustine who states that sexual intercourse is a venial sin.
78. See Note 71 above.
79. 'Epistola dehortatoria' (see Introduction by J.-C. Margolin to 'Encomium matrimonii', op. cit.).
80. Allen et al., op. cit., Vol. 3, No. 858; French translation by Festugière, op. cit., pp. 67–88.
81. See E. W. Kohls, *Die Theologie des Erasmus*, Basle, Reinhardt, 1966.
82. Halkin et al., *Erasmi opera omnia*, op. cit., I-3, pp. 171–81.
83. See H. de Lubac, *Exégèse médiévale. Les quatre sens de l'Évangile*, Paris, Aubier, 1964; the study concerning Erasmus is in Vol. 4, pp. 427–53.
84. See critical edition by J. Chomarat, *Erasmi opera omnia*, op. cit., V-4, 1991, for the first three books, and V-4, 1993, for the last three.

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AL-FĀRĀBĪ

(A.D. 872–950/A.H. 259–339)

'Ammār al-Tālbi

Throughout the ages thinkers have raised the question of what human beings ought to learn in order to be in tune with their own epoch, to live intelligently in society, and to be citizens bringing benefit both to themselves and to the community; hence the importance of education. It is the aims of education that take precedence, only then come the means to realize these aims. For the most part, it is philosophy that is concerned with defining these aims, and here it may come into direct conflict with religion; Islamic civilization has experienced numerous controversies between religious lawyers (*fuqahā'*) and philosophers in this respect, each with his own opinion about gnoseology.

The aim of this essay is to present the attitudes to education of Abū Nasr al-Fārābī within the framework of his philosophical system, an aspect of his work about which little was known, since researchers have been more interested in the logical, metaphysical and political aspects, to the neglect of his educational concepts. However, scholars do know that al-Fārābī studied Plato's *Republic,* and this work, by which he was most certainly influenced, deals mainly with education, as is now accepted by historians of philosophy.[1] It is even more unlikely that al-Fārābī could have been unaware of this dimension of Plato's philosophy since he made a summary of Plato's *Laws,* a work which we know expresses his final thoughts on education.

So who was al-Fārābī, and what is his contribution to education?

Al-Fārābī was born at Wasij, in the province of Fārāb in Turkestan, in A.D. 872 (A.H. 259) of a noble family. His father, of Persian origin, was an army commander at the Turkish court. Al-Fārābī moved to Baghdad, where he studied grammar, logic, philosophy, music, mathematics and science; he was a pupil of the great translator and interpreter of Greek philosophy, Abū Bishr Mattā b. Yūnus (d. 942/329) in Baghdad; he then studied under Yuhannā b. Haylān, the Nestorian (d. 941/328), at Harrān. Thereby he is affiliated to the Alexandrian school of philosophy which had been located at Harrān, Antakya and Merv, before definitively settling in Baghdad. As a result of these years of study, he accumulated such knowledge of philosophy that he earned the name of 'Second Teacher', by reference to Aristotle, the 'First Teacher'.

He moved to Aleppo in 943/330 and became part of the literary circle in the court of Sayf al-Dawla al-Hamdani (d. 968/356). Al-Fārābī was given to wandering on his own in the countryside to reflect and to write, and it was probably his despair at reforming his society that inclined him towards Sufism. His travels brought him to Egypt and it was in Damascus in 950/339 that he died at the age of 80.[2]

Al-Fārābī had a great desire to understand the universe and humankind, and to know the latter's place within the former, so as to reach a comprehensive intellectual picture of the world and of society. He undertook the meticulous study of ancient philosophy, particularly of Plato and Aristotle, absorbing the components of Platonic and neo-Platonic philosophy, which he integrated into his own Islamic-Arabic civilization, whose chief source is, as we all know, the Koran and the various sciences derived from it.

Al-Fārābī represents a turning-point in the history of Islamic philosophical thought, since he was the true first founder of epistemology which relies upon 'universal reason' and the demonstrations he gave. The intellectual, political and social circumstances prevailing in his day no doubt explain his approach since, in fact, he lived in a historical period of great turmoil, during which the central Islamic caliphate was torn apart into independent states and principalities in both the east and west; and sects and schools of thought (*madhāhib*) sprang up undermining the nation's intellectual and political unity (*oumma*). Thus al-Fārābī's concern was to restore unity to Islamic thought by confirming the gnoseology based on demonstration. He established logic within Islamic culture, and this is why he is known as the 'Second Teacher', as mentioned above. He was also engaged in restoring unity in politics,[3] making political science the core of his philosophy, basing himself on the system of rules that governs nature and on the Koran which emphasized the relationship between gnoseology and values (axiology). He believed the first aim of knowledge was knowledge of God and his attributes, a knowledge that has a profound effect on an individual's moral conduct helping him to find the way to the ultimate aim of his existence, while indirectly arousing the intellect so that it should achieve wisdom, which al-Fārābī held to be the highest level of intellectual attainment permitted to human beings in this life.[4] Thus the core of his philosophy came to be the unity of society and the state to be achieved by unity of thought, wisdom and religion, each of these being the foundations of the community's government, which should be the same as the unity and order found in the universe. Indeed, al-Fārābī often compares the order and unity of the city to that of the universe. Philosophy and religion were for him simply two expressions of a single truth, the variance between them being only in the form of expression: philosophy explains religion and provides proof of it; it is neither in conflict nor in contradiction with it. Therefore we find him also bringing together the philosophy of Plato and of Aristotle to explain the unity of intellect; for, in his opinion, there is a general unity of thought between Plato and Aristotle, the disparities being mere details.

It is especially important to note here that al-Fārābī described something that was taboo in the Hellenistic era: namely, the logical category called 'demonstration' whose social and educational function he illustrated in the formation of the mind and political awareness.

The aims of education

Education is one of the most important social phenomena in al-Fārābī's philosophical system. It is concerned with the human soul and makes sure that the individual is prepared from an early age to become a member of society, to achieve his own level of perfection, and thus to reach the goal for which he was created. While it is true that there are no writings specifically devoted to education in al-Fārābī's books, anyone who follows his writings with care will come upon various texts scattered here and there containing clear educational elements corresponding to his overall philosophical views, which incline to integrate separate concepts and thoughts into a 'unified world view'.

Indeed, the whole activity of education, in al-Fārābī's view, can be summed up as the acquisition of values, knowledge and practical skills by the individual, within a particular period and a particular culture. The goal of education is to lead individuals to perfection, since they were created for this purpose, and the goal of humanity's existence in this world is to attain happiness, which is the highest perfection – the absolute good.[5]

According to al-Fārābī the perfect human being (*al-insān al-kāmil*) is the one who has obtained theoretical virtue – thus completing his intellectual knowledge – and has acquired practical moral virtues – thus becoming perfect in his moral behaviour. Then, crowning these theoretical and moral virtues with effective power, they are anchored in the souls of individual members of the community[6] when they assume the responsibility of political leadership, thus becoming role models for other people. Al-Fārābī unites moral and aesthetic values: good is beautiful, and beauty is good; the beautiful is that which is valued by the intelligentsia.[7] So the perfection that he expects from education combines knowledge and virtuous behaviour; it is happiness and goodness at one and the same time.

Theoretical and practical perfection can only be obtained within society, for it is society that nurtures the individual and prepares him to be free. If he were to live outside society, he might only learn to be a wild animal.[8] Then, one of the goals of education is the creation of the ideal community, 'the one whose cities all work together in order to attain happiness'.[9]

One of the aims of education is the formation of political leaders, because 'ignorance is more harmful in monarchs than it is in the common people'.[10] So, in al-Fārābī's view, just as the body needs food and the ship must have a captain, moral conduct must proceed from the soul and the citizens have a real need for a leader who conducts an acceptable policy, directing their affairs in a praiseworthy manner and improving their situation. There is integration between the individual, the family and the city in social life: 'What we say about all cities is also true of the single household, and of each person'.[11] The political leader, al-Fārābī considers, has the function of a doctor who treats souls, and his political skill is to the well-being of the city what the physician's skill is to bodily health. The work of the politician should not be restricted to the organization and management of cities, inasmuch as he encourages people to help one another in achieving good things and overcoming evil; he must use his political skills to protect the virtues and praiseworthy activities that he has been encouraging in the citizens[12] so that they are free of failings. Among the other characteristics of the political leader is the 'consultative faculty', in other words 'an intellectual capacity by which he can draw out what is most beneficial and most fair in the search for the good among others'.[13]

The soundness of the city is a reflection of 'the good balance of morals among its people',[14] and achieving this balance is one of the most important aims of education. When moral behaviour declines and there is doubt over behaviour and opinions, the absence of these common values governing people's conduct disturbs the city. Morality, then, is a fundamental objective of education. Al-Fārābī defines virtues as 'states of mind in which the human being carries out good and kind deeds. . . . They can be either ethical or rational; the latter are virtues of the rational element in the intelligent human being, such as wisdom, common sense, inventiveness and cleverness. The ethical virtues, which are virtues of the appetitive part, are, among others, temperance, courage, generosity and justice.'[15] These virtues in the individual must be internalized in the soul so that a person is ready to act upon them 'earnestly to desire them and, rather than being harmed by them, finds them attractive . . . so that he pursues always those ends which are truly good and makes them his goal'.[16]

Among the other aims assigned to education, al-Fārābī includes 'proficiency in the arts', because, in his view, perfection in theoretical and practical arts is one of the expressions of wisdom; for the wise are 'those who are very proficient in the arts, and reach perfection in them'.[17]

Thus, in al-Fārābī's view, one of the goals of education is to combine learning with practical action, for the purpose of knowledge is that it should be applied, and perfection lies in its being transformed into action: 'Whatever by its nature should be known and practised, its perfection lies in it actually being practised.'[18] The sciences have no meaning unless they can be applied in practical reality, otherwise they are void and useless. The real practical sciences 'are those which are linked to readiness for action'[19] and absolute perfection is 'what the human being achieves through knowledge and action applied together'.[20] Moreover, if the speculative sciences are learned without having the opportunity to apply them, this wisdom is marred.[21]

Concerning the realization of these aims and the supervision of education and teaching, al-Fārābī agrees with Plato and the 'Twelver Shī'a' that it is the priest, ruler or philosopher who should be responsible.[22] And since the lawgiver is also the ruler, al-Fārābī concludes that the law has an educational function: 'The meaning of '*imām*', in Arabic, indicates one whose example is followed, one who is well-regarded'.[23] Issuing laws for society does not simply mean 'that citizens should be obedient and diligent, but also that they should have praiseworthy morals and acceptable behaviour'.[24] Therefore al-Fārābī considers that the one who prescribes the laws must be bound by them himself before expecting others to conform to them: 'The one who decrees the laws must first follow them, and only then make them compulsory.'[25] For he would not be acceptable to those under his command, nor would they respect him, if they did not see him observing his own laws. In short, the law has an educational function, since it leads to the inculcation of virtues when the leaders conform to it themselves and are seen as role models for the general public. For this purpose, the lawgiver must be trained from childhood in the affairs of state,[26] and the *imām*'s or caliph's aim in legislation must be to please God. Only those whom God has prepared may make laws, including the Prophet, whom al-Fārābī defines as: 'He who lays down the practices and the holy laws, and admonishes the people by incitement and intimidation.'[27] The function of the caliph is to pursue the educational role previously undertaken by the Prophet.

Al-Fārābī considers it a duty of the state to set aside a budget for education, taking a portion from the alms tax (*zakāt*) and land tax (*kharāj*), as well as other state resources for this purpose: 'Taxes and duties are of two kinds: one is taken to support mutual assistance and the other for the education of the young'.[28]

What is education?

Al-Fārābī used a large number of technical terms to describe this concept: discipline (*ta'dīb*),[29] correction/assessment (*taqwīm*),[30] training (*tahdhīb*),[31] guidance (*tasdīd*),[32] instruction (*ta'līm*),[33] exercise or learning (*irtiyād*),[34] and upbringing or education (*tarbiya*).[35]

Good manners or culture (*adab*), in his opinion, in their true educational meaning are 'the combination of all the good qualities',[36] while discipline is 'the way of creating the moral virtues, and the practical arts in the nations'.[37] Instruction (*ta'līm*) is 'creating the speculative virtues in nations and cities'.[38] Al-Fārābī distinguishes between instruction (*ta'līm*) and discipline (*ta'dīb*). The former is the way of acquiring a theoretical culture and is mainly verbal. The latter forms ethical conduct and leads to technical or practical skills. They are therefore quite different. But al-Fārābī did not insist on this division, and on another occasion he defined instruction as including discipline.[39]

Al-Fārābī divides instruction between 'special' and 'general'. The special is 'that which is achieved exclusively by demonstration'.[40] This kind of instruction is directed at the élite 'who do not restrict themselves in their theoretical knowledge to what is expected by generally accepted opinions, because among nations, as among citizens, there is an élite and the general public. The general public designates those who are restricted in their theoretical knowledge – whether by obligation or not – to what is demanded by generally accepted opinions.'[41] It is the élite of the élite that exercises leadership.[42] It is for this reason that the method of instruction is different: 'Persuasive and descriptive methods are used in the instruction of common people and the masses in nations and cities; while demonstration methods . . . are used for instructing those who are destined to form part of the élite',[43] that is, those who have been tested and found to have superior intelligence.

Al-Fārābī believes that education is founded upon the basis of the human being having certain inborn aptitudes, which he calls 'nature'; 'in other words the power that the human being possesses at the moment of birth, and which he could not have acquired'.[44] No normal human being lacks it, just as the whole is greater than the part.[45] Al-Fārābī also speaks about 'primary science' and 'primary principals'.[46] He differs from Plato in that he gives a fundamental place to sensory perception. He describes the senses as 'the paths whence the human soul gains knowledge'.[47] Knowledge thus begins with the senses, then becomes an intellectual conception by way of imagination, since whatever the soul understands contains an element of imagination. Knowledge originates with the senses.[48] Al-Fārābī drew attention to Aristotle's opinion in *The Book of Demonstrations* where he says: 'Whosoever loses a sensory perception loses knowledge.'[49] One function of the imagination is to preserve the sensory images,[50] which in the end become intellectual possessions. Some of his views, dealing with what today we would call general psychology and educational psychology, should be the subject of an interesting study.[51] Although he deals with sensory knowledge, he considers that the senses are only instruments of the mind, for it is the mind that possesses the potential of understanding. He pointed to Plato's opinion that the nature of learning is based on 'memory' and gives a metaphor of the concept of 'equality' which, in his opinion, is fixed in the mind: confronted with a piece of wood equal to another piece of wood, we are aware of this equality, in other words the concept of 'equality' is presented to the memory which compares it with the concept already in the mind. 'Any learner proceeds in the same way by comparing it with what is already in his mind'.[52] We find this also in al-Bīrūnī (d. 1048/444): 'Our learning is no more than remembering what we have learned in the past . . . forgetting is the passing away of knowledge, and learning is remembering what the soul knew before it came into the body.'[53]

Teaching methods

As we have seen, al-Fārābī considers that the method of instruction must be appropriate to the level of the learners, depending on whether they belong to the common people or the élite. Education, as he sees it, is necessary for every individual in the nation, since without it nobody would be able to reach perfection and happiness. So, if education must be available to all, the method of teaching should, however, be adapted according to the group it is intended for. There are two fundamental methods: the path of the common people, based on persuasion; the path of the élite, based on demonstration. Furthermore, the method of instruction may also vary according to the instructional material. Thus, teaching theoretical intellectual virtues is carried out by demonstration, while teaching practical arts and crafts is by way of persuasion.

The demonstrative path is achieved through speech. Oral instruction, according to al-Fārābī's words, is therefore 'that in which the teacher uses speech'[54] for matters that can be taught in this way. It leads to the acquisition of theoretical virtues. The persuasive method is conducted through speech and activity combined, and is suitable for teaching the applied arts and moral virtues.[55]

Following Plato's model, al-Fārābī uses the method of dialogue or debate,[56] though he does not consider it as the only method to escape from the world of sensory perception to arrive at the world of intelligibles, beginning with contradictory ideas to arrive at unity. He emphasizes the importance of discussion and dialogue in instruction, and indicates two methods: the method of argument and the method of discourse; both of these 'can be used orally or in writing'.[57] When speaking to the common people, the methods used must be those closest to their powers of comprehension, enabling them to grasp what they are capable of understanding.

Al-Fārābī defines the discourse of persuasion as: 'persuading the listener with what will satisfy his mind, without reaching certainty',[58] as opposed to the demonstrative discourse 'whereby it is sought to instruct the truth, and to explain it in such a way as to bring about precise knowledge'.[59] Persuasion achieves its purpose when it leads to 'the hearer doing things that he is convinced are true'.[60] Similarly, the ability to produce an imaginative impression has an effect on poetry and other arts, such as music, so that: 'the soul of the hearer will rise up to seek the thing imagined, or to flee from it; to be drawn to it or be repelled by it'.[61] To sum up, the objective of the discourse method is simply to persuade without reaching certainty, which would require precise proof; while the objective of the demonstrative method is to gain precise knowledge based on reliable proof.

As for the debating method, it is used to prevail over an adversary, to make a particular idea triumph, to take an opinion to its furthest point, so that even the opponent believes that it is true, without it necessarily being so. This method is used against stubborn people.

There is another kind of discourse used by al-Fārābi which he calls 'scientific discourse'; that 'by which the knowledge of something is obtained'[62] either through asking questions about the thing, or from the replies obtained or, finally, by resolving a scientific problem.[63]

Al-Fārābī sums up all the foregoing in his book *Al-Alfāz*, stating that instruction has two aspects: the way of audition, or learning based on speech, and the way of imitation, which is based on observing other people's actions in order to imitate or apply them. Averroës agreed with him when he stated that 'there are two sorts of learning: by speech and by imitation',[64] it being understood that the latter meant adopting a model and applying it.

Al-Fārābī gives imagination a clear educational function, and makes 'producing an imaginative impression' one way of instructing the common people in many of the concepts difficult for them to grasp. So, the educator resorts to metaphors or appropriate illustrations.[65] Indeed, it is natural for the common people to be restricted in their theoretical knowledge to what is required by generally accepted opinion. The teacher uses the methods of persuasion and suggestion.[66] The power to represent things by their metaphors is useful in two fields: for instruction and guidance; and for confronting someone who stubbornly denies the way of truth.[67]

In short, it can be said that for al-Fārābī the elements of instruction can be summarized as: (a) making something understood by establishing its meaning in the mind and (b) by creating acceptance of what has been understood. Understanding something implies that the essence of the thing has been comprehended by the intellect and that the thing can be represented by something that resembles it. Acceptance is also internalized in two ways: demonstration leading to certainty, which is the philosophical approach, or persuasion, which is the religious method.[68]

One of the techniques that al-Fārābī was concerned with is the one he called 'habituation', which he defined as 'a situation whereby the human being acquires a natural disposition or moves away from some haphazard disposition; by this I mean the frequent repetition of a particular action, at short intervals, over a long period of time'.[69] Ethical virtues are acquired by habituation and repetition, until they form a deep-rooted pattern in the mind, whence issues excellent moral behaviour.[70] An admirable character is attained by habituation, and the character is admirable when its actions are marked by moderation, with neither excess nor neglect.[71] This, once again, is an Aristotelian view of the true nature of virtue and the way to acquire it, but al-Fārābī demonstrates this theory by stating: 'The fact that ethical morality is only attained by habit is shown by what we see in cities: the political leaders make the citizens good by making them used to good actions.'[72] Habituation is not only a technique for teaching moral virtues, but can also be employed in teaching other things, such as writing: 'Skill in writing is acquired only when the person copies the action of a skilful scribe, and so it is with all the arts.'[73]

To sum up, the repetitive method is appropriate for teaching ethics and practical arts, and this habituation takes place by persuasion and affective speech, which establishes them in the mind, so that the learners resolve to carry them out voluntarily themselves; and by way of coercion, which is used with 'disobedient citizens who are not inclined to do what is right of their own accord, or take any notice of what they are told; this method is used with any one of them who disobeys and continues until they grasp the theoretical sciences which are taught to them'.[74]

Al-Fārābī speaks of the way of freedom and the way of slavery and subjection. Obedience is freedom, while coercion is slavery and subjection.[75] The ruler employs two types of virtuous people with technical competence to educate, first, those who accept to be disciplined voluntarily, or, second, those who need to be disciplined under duress. The same is true in families, for there are children who can be disciplined by gentleness and persuasion, and others with harshness. The responsibility for this 'education' lies with the ruler for 'the monarch is the one who disciplines and teaches the nation'.[76]

Al-Fārābī mentions another method – 'learning by heart' – and conceives it in two sections: first, learning words and expressions which the listener repeats until they are memorized, such as learning a language, the Koran and songs; the second goes further than simple rote learning and is designed 'to inscribe the meanings of these expressions in the listener's soul'.[77]

Al-Fārābī was asked which was better, understanding or memorization, and replied:

> Understanding is better than memorization, because the action of memorization deals mainly with words and expressions, in other words with details . . ., which could go on forever and are hardly useful, neither for individuals nor for classes. . . . But the action of understanding concerns meanings, universals and laws – defined matters, finite, and which are valid for all. To exert oneself in these matters is not without benefit. This also applies to the actions peculiar to acquiring them, such as analogy, organization, policies and consideration of the consequences. If the human being learns only the details, he is not secure from going astray. . . . When, however, he relies on principles and general concepts, and when some new matter is presented to him, he may refer to his understanding of the principles to compare one thing with another. So it is clear that understanding is better than memorization.[78]

The teacher and the learner

Al-Fārābī lays down the conditions of both morality and learning for the teacher. He must be of good character, free from cravings and seek only the truth.[79] For educating and teaching the people, none shall be employed but 'people of virtue, trained in the logical arts'.[80] The art of teaching should be undertaken voluntarily, without obligation, except in cases of absolute necessity. The other scientific and educational prerequisites that the teacher should meet are: mastery of the fundamentals of his art (his specialization) and its rules; the ability to demonstrate everything that it is possible to demonstrate, whenever asked to do so; the ability to make others comprehend what he himself knows; and the ability to guard against any distortions that might enter his art.[81]

Concerning the student, particularly if he wants to study philosophy, and in contrast to al-Ghāzālī (d. 1111/505) who wanted him in the first place to have 'studied the Koran, language, and the sciences of the Holy Law',[82] al-Fārābī does not make learning the Koran and the sciences of the Holy Law a precondition, for he places the learning of law (*fiqh*) and theology (*kalām*) at the end of the curriculum.

In addition, the student should possess three further qualities: he should be able to grasp concepts and understand their meaning; accept the existence of what he has grasped or understood; be able to describe what he has grasped and accepted. Al-Fārābī calls these three points 'the modes of teaching' and considers that a person who brings together all these modes is indeed a teacher.[83] Likewise, Galen also considers that if the learner wishes to surpass all others in knowledge, he must have the highest intelligence and should begin with logic, have a passionate desire to know the truth, and should study by night and day so as to understand the viewpoint of the Ancients. He is not to be content with that: he should pursue his studies for a long time so as to select those opinions that agree with the meaning and reject those that contradict it, especially in medicine.[84] In the same way, al-Fārābī considers that the student must always be most eager to learn and study, and quotes the example of little drops of water which, over time, can wear away a stone. The student should not let anything distract him from learning, since he who pays attention to too many things at once ends up with confused and disorganized ideas. Learning requires a great deal of time.[85]

If the student wishes to learn by himself from a book, al-Fārābī advises that he begin by identifying the book's objective, purpose and structure, then its relationship to the sciences and its relative position on that branch of science.[86]

The curriculum

In every age, to reach its objectives, education has to follow a programme listing the elements that will enable the individual to learn about the cultural heritage of his nation, on the one hand, and, on the other, to acquire the knowledge that will lead him to maturity in his feelings, judgement and actions, and to developing a critical approach. Al-Fārābī is considered to be the first Muslim philosopher to classify the sciences and learning, not just for the sake of enumerating them, but also with an educational objective.

For al-Fārābī, the sequence of learning must begin with the language and its structure, that is, its grammar, so that the student can express himself as do the people who speak that language; without this ability, he will not be able to understand others nor they him, and he will be affected by it. Mastery of the common language, the foundation for all other kinds of knowledge, is therefore indispensable. Al-Fārābī was keenly aware of the value and influence of language since he spoke several languages himself, which allowed him to compare cultures and tongues.[87]

After language comes logic, which is the instrument of the sciences and their methodology, and thus leads to sound reflection; and also because it is closely connected with language. Furthermore, the Arabic word for logic (*mantiq*) includes both verbal expression and intellectual procedures, and this is why, in his opinion, language comes before rules about forming the mind, and prepares the way for it.[88]

Then come mathematics, which the Muslim philosophers call 'the teachings' (*ta'ālim*). Al-Fārābī considers that arithmetic comes first, since it is an important stage in the hierarchy of the theoretical sciences: 'Whosoever desires to learn the theoretical art begins with numbers, then ascends to magnitudes (measures), then to the other things to which numbers and magnitudes essentially belong, like perspectives (optics).'[89] The study of optics, astronomy and the natural sciences in general requires mathematics, and arithmetic is one of the basic tools. Al-Fārābī divides mathematics into seven parts: 'numbers (arithmetic), geometry, the science of perspectives, scientific astronomy (contrasted with astrology), music, dynamics and the science of machines'.[90] Mathematics includes algebra. Al-Fārābī's explanation for beginning instruction with mathematics is that numbers and magnitudes do not allow for any confusion, and perfect order reigns. They are an example of precision and clarity, and train the student's intellect in that path. The student must proceed in stages to different levels of mathematics, from the immaterial and the unmeasurable to that which requires material expression, and so on. Geometry comes after arithmetic, for it depends on demonstrations 'giving us certain knowledge and banishing all uncertainty'.[91] Geometry has two methods: that of analysis and that of structure. Then there are perspectives, astronomy, music, dynamics and mechanics,[92] and finally the natural sciences whose subject is matter (animal, vegetable, mineral, etc.).

Following the exact sciences come theology or metaphysics, the human sciences (political science in particular), jurisprudence (*fiqh*), law (*qānūn*) and, finally, theology (*kalām*).

In short, al-Fārābī's curriculum is confined to a group of sciences, graded as follows: science of language; logic; the 'teachings' (mathematics); natural science; theology; civics (political science); jurisprudence; and theology. The link between the natural sciences and theology is, in his opinion, the human soul, which he therefore places among the natural sciences, even though it has a metaphysical aspect. One can then move on to the study of the 'first principle' of all existing being, then return to human science, beginning with those governing society among other things, and the law that governs trade, and ending that the science that defends the beliefs on which society is founded. It should be noted that al-Fārābī did not place medicine among the sciences; he devoted an entire treatise to it and mentions it in many other of his works, calling it sometimes a science, sometimes an art. Nor did he mention in *Kitāb al-iḥsā'* [The Book of Lists] any physical exercise, but he does mention it in *Talkhīs nāwāmīs Aflāṭūn* [Abridgement of the Laws], noting that it is beneficial to the body as well as the mind: 'When the body is sound, so is the mind.'[93]

It can be said that al-Fārābī designed a mathematical curriculum in education resembling that of Plato. As a reminder of the famous inscription over the door of the Academy ('Let none enter who is not a geometer'), al-Fārābī stated that 'the demonstrations used in geometry are the soundest of all demonstrations'.[94]

Al-Fārābī mentions another theory, the one subscribed to by the followers of Theophrastus, according to which education begins with reforming the morals, 'for he who cannot reform his own morals cannot learn any science correctly',[95] as well as a third theory, that of Boethius of Sidon, which begins with natural science, because its subject matter is closer to us and better known, and can be grasped by the senses; even though his pupil al-Saydāwī disagreed with him and chose to begin with logic, since it is a standard whereby we can always distinguish between truth and falsehood. On these various theories, al-Fārābī comments that it is possible to combine some of them. In fact, he thought that, before beginning the study of philosophy, the student should reform his own ethical values, so as to desire nothing but virtue; he must then strengthen the rational mind by training in scientific demonstration, which is geometry giving access to logic.[96]

By comparison, in *The Republic,* Plato considered the starting point to be physical exercise, then arithmetic, geometry, astronomy, music and philosophy (dialectics). However, in his *Laws* he considered the starting point was ethics, because it inculcates love of good and hatred of evil. He did not pay any special importance to observation and experiment, for his was a world of ideas not objects, while al-Fārābī is quite concerned with practical aspects of each one of the mathematical sciences.

Philosophy, the queen of disciplines

But it was philosophy that al-Fārābī places as the highest form of learning for mankind, for it is the knowledge of distant causes by which all beings are governed.[97] It enables us to learn about the best of things in the best possible way,[98] and it is the way to happiness. Through it, the soul of the learner is raised to the level of the rational human being in whom two elements meet: one, natural and biological, and the other intellectual or spiritual, until we reach the first principle of existence.[99]

The ultimate objective of studying philosophy is twofold: theoretical and practical. The theoretical part is knowledge of the Creator, the Most High, the active cause of all things and the governor of this world by His wisdom and justice. The practical and ethical part for human beings consists of imitating the Creator, as far as they are able, by carrying out admirable actions.

The route which must be taken by anyone wishing to learn philosophy is that of action, so true is it that a person only reaches the goal of his deeds through complete knowledge, the purpose of which is action. To arrive at the high point of learning, it is vital to be aware of the natural sciences, then the mathematical sciences; but to achieve excellence in our deeds, we must first reform ourselves, before reforming those who share our house and, finally, our fellow citizens.[100]

As for learning the scientific subjects which must precede the study of philosophy, al-Fārābī sometimes indicates the mathematical method, at other times the ethical method, and at others the natural, without particularly favouring any one. He seems to consider them complementary, but believes that, in the final analysis in the teaching of philosophy, the teacher should first attempt to modify the appetitive morals of the soul to direct them towards excellence,[101] then the rational soul, so that the student can find the path of truth. This can only be achieved in one way: mastery of the science of demonstration which is acquired through that of geometrical (mathematical) demonstration and the path of logical demonstration. Al-Fārābī chose to begin with the former, but saw nothing wrong by starting with the natural sciences since they are more related than mathematics to the senses, which are the beginning of knowledge.

The student of philosophy must also know its history, starting with Plato, then Aristotle,[102] so as to know the latter's aims in his various books, his technical terms, and the various philosophical schools he should be familiar with, and al-Fārābī points out the intellectual, moral and religious qualities which the student of this discipline must possess.[103]

In his own personal philosophy, al-Fārābī applies two different methods: (a) the descending method which begins from the Cause (the One) and ends with the effect (the world of the senses), which is what he applied in his book *On the Views of the People of the Ideal City*; and (b) the ascending method, which begins with the effect and proceeds to the Cause, which he applied in his book *Politics*.

Unlike Plato who believed that only the Greeks were capable of understanding, al-Fārābī has a wider vision not considering philosophy to be a special attribute of any one nation to the exception of all others. He believed that philosophy already existed among the Chaldeans in Mesopotamia, and was then passed to the Egyptians, from them to the Greeks, the Syrians and finally to the Arabs.[104]

Ways and means of elucidation in teaching

Al-Fārābī is concerned with the means of clarifying, understanding and making people aware of meanings. He recommends the use of visual observation for whatever could actually be seen, 'placing the object before the eye'.[105] In his opinion, the first step in teaching about something is to use the correct name that signifies it, then define it, explaining the various parts of this definition, and likewise explaining its particular and general characteristics, so that the former forms part of the latter. One may use illustrations of the object, and describe its special features and its unusual features. It is also possible to make it understood by resorting to something that resembles it or which can be compared with it, and to use the method of subdivision, induction, analogy and metaphor. Al-Fārābī considers that all these methods will facilitate both comprehension and retention.[106] This understanding of something is also supported by knowledge of the characteristics of an object, so that it may be imagined all the easier, inasmuch as by imagining its characteristics, one imagines the thing itself and thus can more easily call it to mind.

He also mentions what he called the rule of 'substitution': if some object has a popular name, this term is used instead of a more complicated one, and the object itself is defined by its constituent elements, an operation which al-Fārābī calls 'division and analysis'. When it is difficult to grasp a concept because of its abstraction, a start is made with the term used to describe it, and if it still cannot be imagined, an illustration is used representing its characteristics. Al-Fārābī recalls that Aristotle used to employ substitutes for expressions to make them more intelligible, a method which gives encouragement to the learner.[107]

As with other techniques, al-Fārābī recommends during learning and demonstration the use of 'geometric shapes drawn upon a board so as to stimulate the imagination, and so that the demonstration itself will not confuse the intellect, and the imagination may be busy with something similar to the thing which it is intended to demonstrate, and will therefore not obstruct the process'.[108] This makes the mind completely occupied with the demonstrations, with the imagination stimulated by the drawing on the board.

Learning about astronomy, among other things, involves the use of instruments, since many of the essentials can only be acquired by observations provided by such instruments. Similarly, listening to instruments is vital in the study of music; for him, musical skill is acquired 'by long application to listening'.[109] Al-Fārābī was particularly interested in instruments that make the theoretical side of music easier to understand.[110] For this purpose he himself fashioned an instrument and modified some others, like the Baghdad drum (*tanbūr*) and the *rabāb*, so as to improve them. He considered that music is the most typical of the sciences whose principles are mostly obtained through the senses, like astronomy, optics and medicine: 'for the art of medicine takes many of its principles from natural science, and is learned principally from sensory experience acquired through anatomy'.[111]

Use of sensory perception in the theoretical art of music is a matter to which al-Fārābī returned many times in his *Kitāb al-mūsīqā al-kabīr* [Great Book of Music], and he called for the making of instruments for this purpose: 'the fundamentals of the science of music are learned through perception and practice. And we have also given . . . guidance for making an instrument . . . which, if tuned in the way I have indicated to produce the notes in a scale, will enable you to hear the same notes. Hence, the rules given verbally will conform to what is heard.'[112]

In this way al-Fārābī not only dealt with the theory of music, but also analysed in detail the way of converting theory into practice: '[In our two books] we have dealt at length with the principles of this science and shown how to make them tally with what is perceived, and in them we have given guidance for making an instrument in which can be applied all the sensory aspects that these principles require.'[113] These instructions for making a training instrument are an important feature in al-Fārābī's educational philosophy; he declared that his books aimed to harmonize theory with practice: 'Most of what we have summarized in this book we have made directly perceptible through well-known instruments, with the result that what was explained by words and analogy was in agreement with what is heard.'[114]

On an entirely different subject, al-Fārābī turned his attention to the purpose of educational games and the function of play in human activity: 'Different types of play have serious purposes, and play is not then an aim in itself.'[115] The value of play must be considered in relation to its aim: 'The intention behind various types of play can only be truly ascertained when they have been evaluated.'[116] In his view, play overcomes fatigue and 'restores the strength required for action'.[117] As with all distractions, and like salt in food, it should be used in moderation for the aim of play is recreation which, in its turn, 'is designed to restore a person's strength to undertake more serious activity'.[118] He recommends games that stimulate a child's creativity: 'like the child who uses doors and houses in his play acquires talents and abilities useful to him if he desires to take crafts seriously'.[119] In the same way, Plato had noted that the Ancient Egyptians used an excellent method to teach children arithmetic: they were required to divide a number of apples into different groups, or flowers into bouquets of different sizes, or to distinguish containers of different metals, after they had been deliberately mixed up.[120]

Is there a place for punishment in al-Fārābī's educational theory? 'The teacher', he thinks, 'must not be too severe, nor excessively lenient. If he is too severe, his pupils will hate him; but if he is too lenient, the pupils will not take him seriously and will be inclined to laziness and to pay no attention to his lessons'.[121] This moderate position leads him to regulate the degree of punishment in accordance with the children's attitude: 'If they are inclined to be mischievous because of some short-term pleasure, then they can be won over by offering them some pleasure when they refrain from it or if they behave in the opposite way. This is how children should be disciplined. If this is not sufficient, then the teacher should add some inconvenience to follow immediately after the misbehaviour, and make it as unpleasant as possible.'[122] It is also possible to substitute bad behaviour with good giving similar pleasure, as long as the misbehaviour itself is followed by a suitable punishment to make the child abandon it. Al-Fārābī does not explain what kind of punishment he has in mind, confining himself to the general idea and leaving it to the educator to decide on the form of correction, depending on the pupil. But he did point out that physical punishment is more effective than psychological punishment, such as fear.

Evaluation

Al-Fārābī was well aware of the concept of evaluating the outcomes of teaching. He emphasized that the aim of an examination is to find out a learner's level in the field being studied. When the time comes, in other words, when a learner is thought to have completed that discipline, he is tested in it 'so as to determine his level in the discipline he is supposed to have mastered'.[123] He considers that the questions asked could have either an educational or an experimental character. In the first case, it is directed at the pupil who is supposed to know something so as to demonstrate that knowledge. But a person can also test himself to ascertain if he has made a quantitative or methodological mistake. For this purpose, instruments are made available to help us check, like the plumbline, the compass, the ruler, the scales, the abacus, astronomic summary tables, etc.,[124] which al-Fārābī classifies among 'the rules which are few in number yet applicable to many things'. If we learn and remember these rules, we also learn the many matters incorporated in them.[125]

In the same way that knowledge is tested, so is intelligence: (a) the ability to discriminate; (b) the capacity for deductive and critical reasoning; and (c) understanding the relationship between isolated pieces of information and grasping the links between them. One of the most important ways of recognizing intelligence is through mathematical ability.[126]

The influence of al-Fārābī

Another entire study would be required to analyse the influence that al-Fārābī had over numerous contemporary philosophers and those who came after him: Yahya b. 'Ādī (d. 974/374), who was his direct disciple; the Brethren of Purity (Ikhwān al-Safā); Ibn Miskawayh (d. 1130/421); al-Mas'ūdī (d. 956/346); Abū'l-Hasan al-'Āmirī (d. 991/381); Ibn Rushd (Averroës) (d. 1198/595); Maimonides (d. 1204/601); and Ibn Khaldūn (d. 1406/808). Some of his books were translated into Latin and Hebrew. In Latin he was known as Alfarabius and Avennasar.

Elements of al-Fārābī's educational ideas still remain valid today, such as his emphasis on the importance of mathematics and the sciences, as well as the experimental method, the integration of knowledge, the importance of values and aesthetic taste. One could even add that Arabic culture has declined in relation to his educational philosophy, which was designed to form an integrated personality, in body, intellect, ethics, aesthetics and technology, an aim which no contemporary education system would neglect.

Notes

English translations of the Arabic titles of al-Fārābī's writings mentioned in these notes can be found in the list of his works below.

1. Edward Zeller, *Outlines of the History of Greek Philosophy*, p. 140, New York, Dover Publications, 1980.
2. T. De Boer, *Tā'rikh al-falsafa fi l-Islām* [The History of Philosophy in Islam] (trans. from German by Mohammed 'Abd al-Hādī Abū Rīdā), p. 191, Beirut, Dār al-Nahda al-'Arabiyya, 1981; Ibrahim Madkour, *La place d'al-Fārābi dans l'école philosophique musulmane* [Al-Fārābī's Place in the Muslim School of Philosophy], Paris, Maisonneuve, 1934; Henri Corbin, *Ta'rikh al-falsafa al-Islāmiya* [The History of Islamic Philosophy] (trans. from French by Nasir Marwā and Hasan Qubaisī), p. 241, Beirut, Manshūrāt 'Awaidat, 1966.
3. Mohammed 'Ābid al-Jābiri, *Takwin al-'aql al-'Arābi*, p. 241, Beirut, Markaz Dirāsāt al-Wahda al-'Arabiyya, 1989.

4. Frederick Copleston, *Philosophies and Cultures*, London, Oxford University Press, 1980.
5. Al-Fārābī, *Tahsīl al-sa'āda* (ed. by Ja'afar Āl-Yāsīn), p. 61, Beirut, Dār al-Andalus, 1983.
6. Ibid., p. 89.
7. Al-Fārābī, 'Talkhīs nawāmīs Aflātūn', in 'Abd al-Rahmān Badawī (ed.), *Kitāb Aflātūn fi l-Islām*, p. 54, Beirut, Dār al-Andalus, 1982.
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10. Al-Fārābī, 'Talkhīs . . .', op. cit., p. 55.
11. Ibid., p. 57.
12. Al-Fārābī, *Kitāb al-milla* (ed. by Muhsin Mahdī), p. 65, Beirut, Imprimerie Catholique, 1968.
13. Al-Fārābī, *Tahsīl* . . ., op. cit., p. 50.
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15. Ibid., p. 30; al-Fārābī, 'Talkhīs . . .', op. cit., p. 40.
16. Ibid., p. 34.
17. Ibid., p. 54.
18. Al-Fārābī, *Al-Tanbīh 'alā sabīl al-sa'āda* (ed. by Ja'afar Āl-Yāsīn), p. 73, Beirut, Dār al-Manāhil, 1987.
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21. Al-Fārābī, *Tahsīl* . . ., op. cit., p. 89.
22. Al-Fārābī, 'Talkhīs . . .', op. cit., p. 62.
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25. Ibid., p. 42.
26. Ibid., p. 43.
27. Al-Fārābī, *Zaynūn al-kabīr*, p. 8, Hyderabad, The Ottoman Encyclopedia, 1346 A.H.
28. Al-Fārābī, 'Talkhīs . . .', op. cit., p. 71.
29. 'Ta'dīb al-ahdāth', in al-Fārābī, 'Talkhīs . . .', op. cit., p. 10.
30. Al-Fārābī, 'Talkhīs . . .', op. cit., pp. 10, 17, 45, 47; al-Fārābī, *Tahsīl* . . ., op. cit., pp. 84–5.
31. Ibid., p. 81.
32. Ibid., p. 17: *tasdīd al-anfus* (the guidance of souls).
33. Ibid., pp. 25–6; al-Fārābī, 'Talkhīs . . .', op. cit., p. 64.
34. Ibid., pp. 43, 45.
35. Ibid., pp. 71, 82.
36. Al-Fārābī, 'Al-As'ila al-lāmi'a', *Kitāb al-milla*, op. cit., p. 96.
37. Al-Fārābī, *Tahsīl* . . ., op. cit., p. 78.
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41. Ibid., pp. 79, 86.

42. Ibid., p. 87.
43. Ibid., p. 88.
44. Al-Fārābī, *Al-Tanbīh . . .*, op. cit., p. 6.
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48. Ibid.
49. Al-Fārābī, *Al-Thamra al-murdiyya* (ed. by F. Dieterici), p. 21, Leiden, Neudruck der Ausgabe, 1890.
50. Al-Fārābī, *Ajwibat masā’il su’ila ‘anhā* (ed. by F. Dieterici), p. 97, Leiden, Neudruck der Ausgabe, 1890.
51. According to al-Fārābī (*Mabādi ārā’ ahl al-madīna al-fādila*, op. cit., p. 70), in the psychological development of the child, the first to appear is the the nutritional capacity, then the sensorial capacity, followed by the imagination, and finally the reasoning capacity or speech.
52. Al-Fārābī, *Al-Thamra . . .*, op. cit., p. 19; al-Fārābī is using Plato’s *Phaidon* as a source.
53. Al-Bīrūnī, *Mā lil-Hind min maqūla maqbūla fil-‘aql aw mardhūla* (ed. by Edward Sachau), p. 28, London, 1887; here again al-Fārābī refers to Plato.
54. Al-Fārābī, *Al-Alfāz al-musta‘mala fil-mantiq* (ed. by Muhsin Mahdī), p. 86, Beirut, Dār al-Mashriq, 1968; al-Fārābī, *Al-Burhān*, op. cit., p. 178.
55. E. I. J. Rosenthal, *Studia Semitica, Islamic Themes,* Vol. 11, p. 97, London, Cambridge University Press, 1971.
56. Al-Fārābī (‘Talkhīs . . .’, op. cit., pp. 40–1) states: ‘the debate between the one asking the questions and the one replying’, the purpose being to study and examine in order to ascertain the validity (of good things) and to make a choice.
57. Ibid., p. 19.
58. Al-Fārābī, in the Preface to his work on logic, *Al-Mantiq*, Maktabat Mishkāt, No. 240/10, folió 121, Tehran University (MS.).
59. Ibid., p. 121.
60. Al-Fārābī, *Fusūl tashtamil ‘alā jamī‘i mā yudhtarr ilā ma‘rifatihi man arāda al-churū‘ fi sinā‘at al-mantiq,* Maktabat Mishkāt, No. 240/10, folio 63, Tehran University (MS.).
61. Al-Fārābī, ‘Fusūl mabādi’ . . .’, op. cit., p. 63; *Ihsā’ al-‘ulūm* (ed. by ‘Uthmān Amīn), p. 67, Cairo, Librairie Anglo-Égyptienne, 1939; *Ihsā’al-’ulūm,* p. 67; ‘Qawānin al-shi‘r’, in ‘Abd al-Rahmān Badawī (ed.), *Kitāb Aristūtālis fi l-shi‘r,* p. 151, Beirut, Dār al-Thaqāfa, 1973; *Sharh al-‘ibāra,* p. 52, Beirut, Imprimerie Catholique, 1971; *Kitāb al-mūsiqā al-kabīr* (ed. by Ghattās ‘Abd-al-Malik Khashba and Mahmūd Ahmad al-Hafnī), p. 1184, Cairo, Dār al-Kitāb al ‘Arabī, 1967.
62. Al-Fārābī, *Al-Hurūf* (ed. by Muhsin Mahdī), p. 164, Beirut, Dār al-Mashriq, 1970.
63. Ibid. On the whole, al-Fārābi considers that demonstrative discourses are entirely justified, as are most dialectic discourses and about half of rhetorical discourses; sophist discourses are based on truth to a lesser degree and poetic discourses are entirely false since they are drawn purely from the imagination (al-Fārābi, ‘Qawānīn al-shi‘r’, in *Kitāb Aristūtālis fi l-shi‘r,* op. cit., p. 101).
64. Averroës, ‘Sharh urjuzāt Ibn Sīnā’, p. 5 (MS., private collection).
65. Al-Fārābi, *Falsafat Aristūtālis* (ed. by Muhsin Mahdī), p. 85, Beirut, Dār Majallat al-Shi‘r, 1971.
66. Al-Fārābi, *Tahsil . . .*, op. cit., p. 86.
67. Al-Fārābi, *Falsafat Aristūtālis*, op. cit., p. 85.
68. Al-Fārābi, *Tahsil . . .*, op. cit., p. 90.
69. Al-Fārābi, *Al-Tanbīh . . .*, op. cit., p. 8; ‘Talkhīs . . .’, op. cit., p. 63.

70. Al-Fārābī, 'Fusūl mabādi' . . .', op. cit., p. 31.
71. Al-Fārābī, *Al-Tanbīh* . . ., op. cit., p. 7.
72. Ibid., p. 57.
73. Al-Fārābī, 'Talkhīs . . .', op. cit., p. 63.
74. Al-Fārābī, *Tahsīl* . . ., op. cit., p. 79.
75. He puts forward this idea concerning the acceptance of laws by citizens in 'Talkhīs nawāmīs Aflātūn': it is good if they are accepted voluntarily but obviously very bad if they are tolerated under duress.
76. Al-Fārābī, *Tahsīl* . . ., op. cit., p. 80.
77. Al-Fārābī, *Al-Burhān,* op. cit., p. 175.
78. Al-Fārābī, *Ajwibat masā'il su'ila 'anhā,* p. 86, 1890.
79. Al-Fārābī, *Mā yanbaghī an yuqaddam qabla ta'allum al-falsafa* (ed. by F. Dieterici), p. 10, Leiden, 1890.
80. Al-Fārābī, *Tahsīl* . . ., op. cit., p. 81.
81. Al-Fārābī, *Al-Jadal,* Maktabat Mishkāt, No. 240/10, folio 192, Tehran University (MS.).
82. Al-Shahrazūrī, *Nuzhat al-arwāh wa-raudat al-afrāh,* p. 180, Cairo University Library, (undated MS.); De Boer, op. cit., p. 202, note 1.
83. Al-Fārābī, *Al-Alfāz* . . ., op. cit., pp. 83, 87; *Al-Burhān,* op. cit., p. 178.
84. Averroës, 'Talkhīs al-quwā l-tabī'iyya', in: Georges C. Anawati and Sa'īd Zāyid (eds.), *Rasā'il Ibn Rushd al-tibbiyya,* p. 275, Cairo, Al-Hay'a al-Misriyya al-'Amma lil-Kitab, 1987.
85. Al-Fārābī, *Mā yanbaghi* . . ., op. cit., p. 52.
86. Al-Fārābī, *Al-Alfāz* . . ., op. cit., pp. 94–5.
87. He spoke Turkish, Persian, probably Greek, as well as Arabic, which he considered his mother tongue.
88. Ja'afar Āl-Yāsīn, *Faylasūfān rā'idān* . . ., p. 80, Beirut, Dār al-Andalus, 1980.
89. Al-Fārābī, 'Fusūl mabādi' . . .', op. cit., p. 96.
90. Al-Fārābī, *Ihsā' al-'ulūm,* op. cit., pp. 53, 93.
91. Ibid., p. 96.
92. Ibid., p. 97.
93. Al-Fārābī, 'Talkhis . . .', op. cit., p. 76.
94. Al-Fārābī, *Mā yanbaghi* . . ., op. cit., p. 52.
95. Ibid., p. 52.
96. Ibid., p. 53.
97. Al-Fārābī, *Al-Tanbih* . . ., op. cit., p. 82.
98. Al-Fārābi, 'Fusūl mabādi' . . .', op. cit., p. 52.
99. Al-Fārābi devoted a special treatise to philosophy in *Mā yanbaghi* . . ., op. cit.
100. Ibid., p. 49.
101. Ibid., p. 53.
102. Al-Fārābi, *Tahsil* . . ., op. cit., p. 97.
103. He mentions a total of sixteen characteristics (*Tahsil,* op. cit., pp. 94–5).
104. Al-Fārābi, *Falsafat Aristûtâlis* . . ., op. cit., p. 82.
105. Al-Fārābi, *Al-Alfāz* . . ., op. cit., p. 91.
106. Ibid., p. 87.
107. Ibid., p. 91.
108. Ibid., p. 94.
109. Al-Fārābi, *Kitāb al-mūsiqā al-kabir*, op. cit., p. 100.
110. Ibid., p. 672.
111. Ibid., p. 807.
112. Ibid.

113. Ibid., p. 482.
114. Ibid., p. 483.
115. Ibid., p. 1185.
116. Ibid.
117. Ibid.
118. Ibid.
119. Ibid.
120. Plato, *Laws*, VII. Plato was already an adult when he learned mathematics, which led him to say that he was ashamed not only for himself but for the Greeks in general because of their backwardness in geometry compared with the Egyptians.
121. Al-Fārābī, *Mā yanbaghī* . . ., op. cit., p. 52.
122. Al-Fārābī, *Al-Tanbīh* . . ., op. cit., p. 72.
123. Al-Fārābī, *Al-Burhān*, op. cit., p. 181.
124. Al-Fārābī, *Ihsā' al-'ulūm*, op. cit., p. 58.
125. Ibid.
126. Al-Fārābī, *Al-Tanbīh*, op. cit., pp. 4, 6, 53–4.

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ADOLPHE FERRIÈRE

(1879–1960)

Daniel Hameline

Of all figures who enjoyed an indisputable international reputation between the wars, Adolphe Ferrière is probably one of those who has suffered most from the 'ravages of time', and the current neglect of his books is not the worst of these. When Ferrière's name happens to come up in a quotation or reference, it is often apparent that those aspects of him that people remember nowadays make him look like a caricature.

The first image that has remained of Ferrière is, on the face of it, positive and attractive: he is praised as a tireless promoter of the noble ideal of active childhood. But some writers can on occasion give a somewhat offensive overtone to their praise. They hail the gallant idealistic activist, the fervent apostle, as more prone to flights of lyricism than to serious thinking.

The second image is more obviously negative, and it is still with us today. It portrays Ferrière as someone who, beneath a veneer of modernism, was the epitome of the 'spiritually-minded' educational psychologist, and therefore reactionary and short-sighted. During the 1960s, Marxist-inspired sociologists and educationists launched a vehement indictment of the psychology or educational psychology of the activity school. Its detractors criticized it for hiding a bourgeois, élitist and individualistic ideology beneath a pseudo-scientific cover. Ferrière was one of the favourite targets for this criticism (see, for example, Charlot, 1976; Vial, 1990).

This two-sided image of the 'apostle' and the 'reactionary' does not do justice to what Ferrière actually wrote, and even less to what sort of man he really was. Getting to know him by reading his private diary ('Petit journal', 43 volumes, 1918–60) and going back to his work and books, we learn to see him as someone who still has a message for us today, a message that comes through most clearly in his contradictions.

Thus Ferrière appears both fragile and self-confident, so vain as to be funny and yet generous enough to arouse admiration. He himself said he was 'an introvert by necessity' because he was totally deaf from the age of 20, whereas he was in fact 'an extrovert by nature'. He felt he had a genuine vocation for public life and sincerely wished to devote himself first and foremost to teaching, but he had to abandon this vocation because of his disability and become an 'educationist' against his will. Although he was a disinterested man of principle, the need to earn a living condemned him to the duties of a pen-pusher in progressive education. It is true that he adopted the prejudices of his social background, but at the same time his political writings show him to be a shrewd and objective observer of the period between the wars. This élitist 'liberal' who defended the social order published a 'socialist' profession of faith in 1919. He supported central planning and argued in favour of state-led economic recovery which did not cut the purchasing power of ordinary people. Although always quick to engage in polemics, he was a middle-of-the-road thinker who argued in favour of the marriage of 'science and common sense'. He could be moving, but he could also be funny. When we take a good look at Ferrière, we find that he cannot be pigeonholed, and this is what makes him fascinating, much more so than his conventional image.

Adolphe Ferrière's work

On 23 January 1944, Ferrière wrote in his main diary, 'Mon grand journal',[1] that he could split his intellectual life into five decades, each of them dominated by a different discipline: 'From 1900 to 1910 metaphysics was my main interest. From 1910 to 1920 I moved on to psychology. From 1920 to 1930 it was educational theory that had pride of place, and from 1930 to 1940, sociology. And since 1940, I have been steeped in philosophy, up to my neck in it, not to mention mind and soul.' Obviously this division into decades is purely arbitrary, but comparing Ferrière's view with the bibliography compiled by Gerber in 1989 does enable us to draw one direct lesson.

This affects the usual view of this leading educationist's relationship with educational theory. Although he acknowledges that it once occupied 'pride of place' in his intellectual life, this was only for a brief and well-defined period: from 1920 to 1930; after 1930 his main interests lay elsewhere. This assertion, which knocks the habitual view of Ferrière on the head, fits in with the image he had of himself, and does not seem to be too far from the truth.

Ferrière, who was both a thinker and a man of action, was always repelled by the label of 'educationist', which he found restrictive and petty. He crossly claimed in 1924 that he had not 'read a single book on educational theory'[2] and in 1931 that he 'knew nothing about educational theory'.[3]

In fact, Ferrière was loath to be termed an educationist for two reasons. The first was that from an early age he thought that his place was primarily in the European political, economic and social arena, where indeed he was soon to play his part. From 1918 to 1923 he was editor of the Christian Socialist journal *L'essor*, for which he continued to write political editorials until he retired from public life in 1953. It should be pointed out that, in terms of the volume of material published, this constitutes as important a part of his work as his books on education. For Ferrière, his interest in education was just one aspect of his work as a free citizen.

Moreover – and this is what gives an original and poignant touch to his role as a teacher – Ferrière always praised the intuition of the man of action and he always claimed to be a 'practitioner' (Hameline, 1982). When his physical disability forced him to give up the work that had enabled him to have direct contact with children, he regarded his career in publishing as an extension of his 'vocation' as a teacher. He became an educationist only because he was unable to do otherwise. We cannot understand Ferrière unless we constantly bear in mind the terrible handicap that his early deafness represented for him. It was an astounding achievement to have been able none the less to play such an active role in society.

The man who so much wanted to be a teacher

There is no doubt that if he had not been prevented by his deafness, Ferrière's first venture would have been to start the new school on which he had published a brochure, *Projet d'école nouvelle*, in 1909.

Gerber (1982) has described how Ferrière's teaching vocation emerged. Reading the 'Journal reconstitué',[4] the young Ferrière's correspondence with his parents and finding out more about his family and social background enables us to confirm three facts: Ferrière continued in adult life to show the same aptitude for leadership as he had displayed in his youth; he had the 'individualistic' stamp typical of educational innovators; and he grew up in a philanthropic upper-middle-class family in Geneva, with the 'new schools' of that city forming part of his everyday surroundings.

IN PRAISE OF THE LEADER

First of all, the 'Journal reconstitué' (the diary he reconstructed after all his early work was destroyed in a fire) dates the beginning of the adolescent Ferrière's role as a leader in his family group from 1893. Later, as a young man, he was also a leading figure among the young people he knew in Geneva.

Let us look more closely at this point. Ferrière always stressed the 'psychological' factor in his wish to look after children and adolescents. Referring to himself as a 'teacher by profession', he at the same time described himself as a 'child psychologist'.[5] In a private assessment of his career written in 1953,[6] he insists with hindsight on his psychologist's 'curiosity', which he seems to have employed with regard to group phenomena from an early age. Here the educationist and the political analyst join forces with the psychologist, and it is in this triple role that Ferrière can be described as following in the footsteps of Gustave Le Bon, the first exponent of crowd psychology (1895). Thus in his 1921 book *L'autonomie des écoliers* – which he describes as a 'study of social psychology'[7] – Ferrière ends a chapter about child gangs 'by reproducing the main passages from a document given [to him] by a teacher' who as an adolescent had been 'leader of a few such gangs'.[8]

If we compare this account with two biographical notes devoted to Ferrière and written under his supervision (Peeters, 1911; Meyhoffer and Gunning, 1929), it becomes clear that Ferrière is describing his own experiences under cover of anonymity. The same gang of cousins appears and the same 'mountaineering club' is formed, followed by a literary society that performs his plays. Even the style is recognizably similar.

Is this modesty or ingenuity? Probably both. It is a device that allows Ferrière to talk about himself in the third person while avoiding the danger of being criticized for hogging the limelight. The trouble here is that Ferrière the social psychologist is giving a description of Ferrière the leader which Ferrière the teacher cannot thoroughly endorse. Because what type of leader is he praising? The answer is an autocrat, perfectly capable of fostering rivalries within his group the better to assert his authority; a manipulator 'who dispenses others from any effort while giving them the illusion that the success of the group is due to their efforts', thereby making himself indispensable; a pocket-size Machiavelli who admits that he encouraged the group to elect another leader in order to make them want him back as leader.[9]

The young leader thus described shows himself to be an astute 'psychologist' who makes a virtue out of manipulating people. This anthological pearl is one of the first examples of a psycho-managerial literature on the psychology of leadership that blossomed from the 1920s onwards. Ferrière the teacher drew a psycho-moralistic conclusion from it for the control of groups of children by adults: the children should be allowed to progress (meaning, in fact, that they should be led) from anarchy to order by making them want the latter. The constraints resulting from a lack of order would be more decisive in helping them to achieve autonomy than the adoption by teachers of premature and authoritarian measures to organize the group.

The importance the author of *L'autonomie des écoliers* attaches to this account starring himself shows the extent to which Ferrière regarded this youthful experience as an initial test of his talent for observation and for manipulating his peers. And it was a test which he obviously found convincing.

THE NON-CONFORMIST

In the second place, Ferrière told his first biographer E. Peeters in 1911 that he had 'suffered a great deal at secondary school'. By the time he wrote the review of his career in 1953 this memory had taken a turn for the worse: 'Secondary school nearly killed me.' This is a conventional, even banal, comment on the part of a supporter of 'the new education', but in his personal account of those schooldays Ferrière does not acrimoniously attack his teachers and the way they conducted their classes, apart from complaining about the wall that his inexorably worsening deafness was putting up between him and them. On the other hand, he is much harder on his schoolmates. It was not just his deafness that set him apart, but also his rather arrogant wish not to conform to the conventions in use among the 'leading families', and which also affected relations between pupils. Typically, for someone with a mission as an educational innovator, Ferrière was, in his way, a nonconformist.[10] Although 'sociable and accommodating', as he himself wrote in his secret autobiography in 1921, he behaved as an individualist or, to put it more precisely, as an individual.

One characteristic common to the founders of the new schools in the countryside who wanted to break with the existing school order[11] was that they had strong, charismatic personalities. The history of the new schools is often the history of stormy collaboration followed by break-ups between individuals with strongly contrasting characters, though obviously there is more to it than that. Despite his deafness, Ferrière was in many people's eyes a man of dialogue with a deep wish to listen to and help others. But this openness was not incompatible with an awareness of his own worth, and his highly individual manner is evident in his *Projet d'école nouvelle*, published in 1909.[12] Ferrière was then aged 30 and described himself as a man of initiative, sure of the merits of his venture and the approach he had adopted, and anxious to make his mark on the educational landscape. At the same time, however, his proposals reflect his support for the ideals shared by the new schools in the countryside. To quote his own words, he wanted to be acknowledged as 'a pioneer among pioneers'.[13]

FERRIÈRE'S FAMILY AND THE NEW SCHOOL

A third factor in helping us to understand Ferrière's 'vocation' is that he came into contact with the new countryside schools at an early stage in their development. The movement began in 1889, when Cecil Reddie established the New School at Abbotsholme, England. Adolphe was not the first Ferrière to discover the new schools; he learned about them through his family. From 1899 two of his first cousins were attending two schools regarded as flagships of the movement: one was at the *Landerziehungsheim* at Ilsenburg, Germany, whose headteacher was Hermann Lietz, and the other at the New School in Bedales, England, whose head was J. H. Badley, a former colleague of Cecil Reddie at Abbotsholme. His uncle, the Reverend Louis Ferrière, visited the *Deutschen Landerziehungsheime* before Adolphe and published a report on them in 1901.

Ferrière relates that in 1899 he made a visit, accompanied by his father, to French sociologist Edmond Demolins at the École des Roches at Verneuil-sur-Avre, France.[14] He had read Demolins's best-selling *A quoi tient la supériorité des anglo-saxons?* (1897), as well as his manifesto for parents, *L'éducation nouvelle* (1898). As Ferrière has often recalled, it was Demolins who suggested that the young man should take on a job in which his worsening deafness would not be too much of a handicap: setting up an International Office of New Schools. Ferrière could carry out a comparative evaluation for the innovators which in the long term could also benefit state schools. At this point, however, Ferrière had not yet given up his plans to teach and he discussed the issue at great length with his parents,[15] for whom he had great respect.[16]

FERRIÈRE'S TEACHING EXPERIENCE

The most important period in Ferrière's early career were the two years (1900–02) he spent with Hermann Lietz, who was a true source of inspiration to him.[17] He went to Lietz's school in Germany as a 'volunteer teacher' and, if the family's letters are anything to go by, he spent a lot of time organizing and supervising the studies of his younger brothers, who were pupils at the school. But he won Lietz's trust, took his side during a teachers' revolt and became for a few months the assiduous and fascinated direct assistant of this charismatic figure.

Grunder (1987), working from unpublished documents, has attempted to reconstruct what Ferrière actually did during this period which he always described as 'exhilarating', referring to the 'great life of Haubinda'. Was he overestimating in retrospect the scope of his brief experience as a teacher? The school curricula and timetables analysed by Grunder seem conventional enough. But it was during this period that Ferrière says that he tried for the first time to give lessons based on the 'spontaneous interests' of pupils,[18] which enabled him to claim that he had anticipated 'the two attempts that followed, in 1907 and 1908, those of Mrs Montessori and Dr Decroly', and which, unlike his own, were discussed all over the world.

Ferrière's insistence that he had been a forerunner of the great innovators can be explained by the 'strategic' choice he had to make when he 'went into educational theory' in 1921: describing himself as someone with teaching experience and thus setting himself apart from those who pioneered new education only in their books. In 1936[19] he distinguished himself from the other teachers at the Jean-Jacques Rousseau Institute (Claparède, Bovet, Piaget): they had all written profusely, he said with a hint of sarcasm, 'only the undersigned has actually taught'.

Apart from his initial experience with Hermann Lietz in 1900–02, Ferrière describes the three months he spent at Glarisseg in 1902 helping W. Frei and W. Zuberbuhler, two Swiss colleagues of Lietz who had established the first Swiss *Landerziehungsheim*. He also mentions the six years during which he worked from time to time at the Les Pléïades boarding school (1914–20) (cf. Hameline, 1982; Gerber et al., 1990).

THE BEX NEW SCHOOL: THE ACTIVITY SCHOOL METHOD

It was during his year at the new school in Bex (1920/21) that Ferrière experimented with the ideas to be applied to 'the activity school in practice', as he called his book published in 1924. *La pratique de l'école active* was based on the unpublished 'Journal de notre petite classe', of which it contains long extracts. The manuscript of this diary has been located and a study for the Swiss National Fund for Scientific Research offers a synoptic comparison of the published extracts with the unpublished text.

The comparison confirms and underlines the insubstantial, not to say insignificant, nature of the experience itself. Ferrière was honest enough to make this quite clear in his book. One extract from the diary reads: 'I am beginning to understand many things. They can all be summed up in one sentence: you don't do what you want to do'.[20] Further on he remarks: 'I came to Bex to find out how the activity school works and to confirm my convictions. I have only acquired a sketchy idea of the technique but the overall experience, however incomplete, has only strengthened my convictions'.[21] We shall return to this last point later.

None the less, reading the 'Journal de notre petite classe' reveals several things that Ferrière did not make public. For instance, he only published extracts from his own notes whereas the diary comprises three viewpoints: Ferrière's, that of his wife Isabelle and that of their colleague and friend Elisabeth Huguenin.[22] This three-sided debate that goes on throughout the diary is extremely informative. Ferrière's companions frankly express their doubts about the convictions underpinning the type of educational action engaged in: no, the two women wrote, these pupils do not learn of their own accord; yes, they enjoy 'schoolbook' exercises which do not apparently correspond to any 'spontaneous' interest; if these children are passive or confused, it is obviously because they have been conditioned by their earlier schooling, but it is also because the activity class syllabus is too ambitious and complex and they do not understand what it is aiming at. It was probably Ferrière's militant idealism that prevented him from reporting the reservations of his colleagues, who were less convinced than he.

AN UNHEEDED ADVISER

Ferrière's final attempt to put his theories into practice was to end in disappointment. In 1924 he was asked to take part in setting up an international school in Geneva. Initially reticent, he quickly became almost impatiently enthusiastic and threw himself into the project, imposing his opinions on Paul Meyhoffer, the prospective headmaster, who was particularly devoted to him. Ferrière even offered to house the prospective school in a chalet owned by his family. He was made 'general manager' with the task of drawing up the school's educational charter, a mission that he regarded as the last chance he might have to put his ideas into practice. But the founding committee did not really share Ferrière's innovative designs; what they wanted was a modern school that would inspire the confidence of international civil servants and thus ensure a good reputation, not a laboratory for testing educational theories.

Although Ferrière must have sensed the opposition and reservations of his colleagues, he none the less forged ahead, leaving himself with no way out and personally assuming all the risks. The early days were difficult: Ferrière wanted to finish with curricula imposed from above and counted on the teachers' ingenuity to encourage spontaneous activity on the part of the pupils and to lead them, as he himself had tried to do at Bex, to develop their own curriculum. But neither teachers nor pupils – and parents even less – were ready for such an adventure, which, moreover, gave all the appearances of chaos. During the first few weeks, Ferrière wrote in his diary about his fears. In 1925 he tried to make the school self-managing, with the same disappointing result. From 1926 onwards, he could see that the school would not be the laboratory that he had hoped would point the way to a reform of the education system. Although he remained as an adviser to the international school until about 1929, psychologically he started drifting away from it at the end of 1926.

FERRIÈRE'S 'HOME'

In 1929 Ferrière found the compensation he had been seeking for his thwarted dreams of teaching. He was still nostalgic for the model school which he had not been able to establish personally and which he had expected to confirm his ideas. Moreover, he found it hard to get over the fact that his wife could not give him the large family he would have loved to raise. In his diary he tells of the pain he felt as the father of an only child, an engaging boy with a strong but difficult personality. The educational haven he sought was known by the English name 'Home'. In his end-of-the-year review for 1929 he wrote: 'I need children around me. At the Home, I have found children hungry for affection, an atmosphere of purity, sincerity, mutual help, manageresses who say they need my support, who follow my advice on teaching and had already been following it on general education, even before I had given it. I feel "at home" '.[23]

In exchange for this warm reception, Ferrière became the Home's self-appointed publicist, elevating this humble orphanage to the rank of ideal activity school. He became its adviser, exerting his influence over the manageresses, setting himself up as a father-figure for the children (who called him Uncle Adolphe), a role played by ear, and taking a concerned interest in their education. He expended boundless energy on behalf of the Home, whose financial problems were endemic. It so happened that in 1933 he came to live close by and became chairman of the governors' association, a position he held until 1947 (Coquoz, 1989).

The promoter of ideas

So whereas Ferrière tried to project an image of himself as an experienced teacher, he had only sporadically been directly responsible for education and he had not been satisfied with the outcome. What he lacked was not intuition but length of experience. The former enabled him to pinpoint what was wrong with the education system, but only the second would have enabled him to put his own convictions to the test. But was he capable of calling his convictions into question? This seems unlikely, judging by the statement referred to earlier: at Bex, in 1920/21, Ferrière the man of conviction, who 'believed' in the activity school, came face to face with Ferrière the technician, who was trying to devise ways of putting it into practice. Even though Ferrière the technician was unable to bring his efforts to a successful conclusion, Ferrière the activist remained convinced of the merits of his cause. The reason was that Ferrière's beliefs rested on two premises: (a) he thought that they were supported by 'scientific' argument; and (b) he felt that they were capable of ushering in a real change in mentalities, and indeed a 'new era'.

Ferrière the thinker described himself as a man of experience for strategic reasons: he had noticed that theorists were immediately challenged in educational circles, where there was little tolerance for lessons other than practical lessons. But in the end he decided to make actively promoting ideas his principal task, and became a propagandist. In fact, his deafness left him no other option.

The teacher of Bex was also the author of the incisive pamphlet *Transformons* *l'école* (1920), in the introduction to which he portrays the traditional education system as the very embodiment of evil.[24] He was also a speaker at the Calais Conference in 1921, was elected vice-chairman of the newly formed New Education Fellowship and in January 1922 became editor of *Pour l'ère nouvelle*, the French-language version of its journal. Ferrière was completely taken up by his role as an activist. He published thousands of pages during the 1920s when, as he says, pedagogy 'had pride of place' in his intellectual life. A huge amount of correspondence remains from this period and demonstrates the prestige he enjoyed; he noted the 'volume' in his diary with a mixture of pride and despondency. The fact was that he had truly become a public figure.

CONDEMNED TO FAME

The year 1921 was a critical one for Ferrière who was then, so to speak, forced to become famous just to survive. He was no longer a man of private means who could devote himself to education as a freely chosen leisure activity. Ferrière had become a low wage earner. Married in 1910, father of a child in 1916, he had become by 1921 a man with serious financial problems. When his house burned down in 1918, destroying twenty years' writing, he was badly shaken,[25] and in 1919 the collapse of the German and Austrian currencies put paid to the fortune he had inherited from his mother. Ferrière found himself obliged to earn a living, just as he was having to face the fact that his plans to establish his own school were not viable. His unsuccessful experiment with 'lower class' girls at the new school in Bex, also in 1921, provided further proof that because of his deafness he was now unfit for educational work that brought him into direct and permanent contact with children.

He had mixed feelings about fame. He pursued it with a sometimes touchy persistence and a feverish level of promotional activity which he himself said was like the 'superficiality of a butterfly'. But he was sincere when he wrote in his diary in 1922 that his dream would have been to 'make his place' like a cricket and to lead a quiet life as a teacher in direct contact with a group of children whom he would guide according to his own vision of the principles of the new school. Giving up this dream was an inner tragedy that often left him defeated and depressed.

We next find him courageously going off at a tangent, caught up in a whirlwind of public relations, while asserting in a letter dated 9 December 1925 that his deafness made his personal relationships 'extremely awkward, tiring, even exhausting' and that he had been trying without success to gain some small pecuniary advantage out of all these commitments. The same complaint crops up time and time again in his diary: 'With my deafness, financial problems are particularly tormenting', he wrote in 1925.

From 1921 onwards, he played an active part in the gradual and laborious process of planning and setting up the International Bureau of Education (IBE). He was appointed deputy director when it was founded in 1925 and his position was confirmed when the IBE became an international organization in 1929.[26] But he had no illusions about the appointment: he had himself turned down the job of secretary-general from which he was debarred by his deafness. He had attempted in vain to 'find a paid slot' within the IBE for his International Bureau of New Schools, of which he had from the beginning been the only employee – unpaid. Not having a salary got him down. Although he drew some comfort from the prestige he enjoyed, he was too honest to be totally taken in by it.

During the 1920s he regularly spoke at conferences of the Fellowship (Montreux, 1923; Heidelberg, 1925; Locarno, 1927; Elsinore, 1929). *Pour l'ère nouvelle* took up a considerable amount of his time. He spoke of it as *his* journal and turned it into a platform for his ideas, but it only brought in a very small amount of money.

His 'decade in the service of education' was also one in which Ferrière travelled extensively abroad, giving many lectures which were in fact arguments in favour of the activity school or genetic psychology as he understood it. Belgium and the Netherlands (1924), France, the United Kingdom, Yugoslavia (1925), Italy (1926), France, Belgium, Germany, Italy, Hungary, Romania, Austria (1928), Germany, Czechoslovakia, Poland (1929), Spain, Venezuela, Ecuador, Peru, Chile, Argentina, Paraguay, Portugal (1930). He felt that his work had been recognized when he was officially asked to evaluate the education system of the Smyrna district in Turkey in 1928.

THE POLITICAL WRITER AND THE PHILOSOPHER

Ferrière also had to establish himself in his field through his intellectual output. Very early on, he started work on a massive intellectual undertaking of which his ideas on education were only one aspect. He puts the date of his first ideas on 'genetic psychology' in 1905, then in 1909, when he gave his first public lectures at the University of Geneva.

However, his fervent activism, coupled with the need to earn a living from his writings, were partly to prevail over this intellectual project. Ferrière the thinker had to make way for Ferrière the political writer, but the two encroached upon each other. The thinker needed to take his time and meditate on what he was to write; the political writer had to work quickly, find an audience and pull in his meagre royalties. Not counting the hundreds of articles he was to turn out for all kinds of newspapers and journals, Ferrière wrote books aimed at the general public which were extremely successful and often translated (*Transformons l'école*, 1920; *L'éducation dans la famille*, 1921; *L'activité spontanée chez l'enfant*, 1922; *La coéducation des sexes*, 1926; *Le grand cœur maternel de Pestalozzi*, 1927; *Trois pionniers de l'éducation nouvelle*, 1928; *Nos enfants et l'avenir du pays, appel aux parents et aux éducateurs*, 1942). Indeed, Ferrière had real talent as a journalist – he could write rapidly and effortlessly – but he could not resist the temptation of including in these minor works references to his masterwork, which were sometimes so obscure as to appear difficult, despite his lively, flowing style.

Moreover, when he decided to address a 'specialized' readership of education professionals, he was as concerned with meeting deadlines as with producing properly completed pieces of work. So despite the thickness of the two volumes of *L'école* *active*,[27] it is a work hastily turned out, even cobbled together, and owed its existence to Ferrière's facility for writing, his talent for piecing together existing material and re-using bits of his previous work. He began writing it on 18 September 1921; at 12.30 p.m. on 23 October he completed the 425th and final page.

Such haste could not fail to give his detractors the arguments they had been looking for. Ferrière was particularly hurt by one attack launched soon after the book came out. Without warning, his 'deaf friend and colleague' from Geneva, Edouard Claparède, published an analysis of the book in February 1923, ridiculing Ferrière and accusing him of producing a ragbag of ideas in which the concept of the activity school – a very simple one in Claparède's view – was bogged down in an impossible hotch-potch of philosophical dogma. It is true that there were political motives behind this scathing criticism: Claparède was irritated by Ferrière's tendency to play him at his own game and to claim the idea of the activity school as his own. But with this reservation, we have to agree that Claparède was not completely wrong from an intellectual point of view. If Ferrière had taken his time he would undoubtedly have completely recast his book. In any case, his 1946 book bearing the same title of *L'école active* – a much smaller work – was actually a patchwork composed of a few chapters taken from *L'autonomie des écoliers* (1921), *La pratique de l'école active* (1924) and *L'école active* (1922): in short, there was not much left of the book published in 1922. Nowadays we would say that despite its campaigning nature, it was a book that had not correctly identified its target readership.

AN UNFINISHED WORK

All the same, Ferrière thought there was an audience for his intellectual masterwork. When he brought out *Le progrès spirituel* in 1927, this substantial 364-page book was supposed to herald an ambitious series entitled 'L'éducation constructive' in which Ferrière planned to set out the educational ideas at the basis of his analyses of the previous decades. But the book was a flop and the follow-up was never published. Here again, Ferrière had not managed to find an audience able to read his work without being put off: 'L'éducation constructive' was presented as a series of 'discussions about genetic psychology for parents and teachers', but *Le progrès spirituel*, which quotes more than 300 authors, was actually an overview of doctrine aimed more at intellectuals. However, in this general survey Ferrière touched on too many subjects to which separate disciplines laid claim and in which he was not acknowledged as an expert in academic circles. His outlook was still focused too sharply on education. Anxious to put forward a philosophy that was both comprehensive and to the point, Ferrière offered an approach that went off at a tangent and ran the risk of not being understood.

There were, however, other reasons why Ferrière's work had fallen out of favour. In the late 1920s, many of those who had been campaigning in the name of idealism or psychologism fell prey to disillusion.[28] During this period experimental pedagogy was being turned into an academic discipline in contrast with the 'experiential' pedagogy of 'born teachers', as favoured by Ferrière.[29] Meanwhile those working in the field were reducing the 'activity school' – that sustaining utopia – to the status of 'activity methods' – a mere collection of useful tactics. The late 1920s also saw the emergence of socialist and communist tendencies within the ranks of the Groupe Français d'Éducation Nouvelle (GFEN) set up by Ferrière, and at the Fellowship Conference in Nice in 1932 these were instrumental in replacing the 'spiritualistic' principles inspired by Ferrière in 1921[30] with principles determined more by concern for social equality and democratization.

By the end of the decade Ferrière noted, not without bitterness, that although his books had been widely translated he was intellectually isolated. Underestimating the influence he had on many people through his writing for the general public, he wrote in his diary on 16 February 1929:

> *My disappointments* [underlined in the text]. I note with some bitterness that I have apparently devoted my life to the new schools and that they seem unaware of my efforts and my books. . . . Many headteachers to whom I have written have forgotten that I exist. Most of their colleagues have never known that I exist. The books I have written for them have fallen by the wayside. . . . There are no publishers for my books, or when I do find any they manage to corner all the profits; no money, therefore no secretary, therefore no way to write my books. I believe I have some basic good qualities, and I am wasting my life rendering small services for which nobody is grateful. . . .

Ferrière had no disciples.[31] There was no 'Ferrière movement' in the sense that we speak of a 'Montessori movement' or a 'Freinet movement' (cf. Hameline, 1992).[32] In Geneva, both at the Jean-Jacques Rousseau Institute and at the IBE, Ferrière remained a solitary figure. Among the rare individuals who remained faithful to him we should mention Célestin Freinet who until the end – even if it entailed rearranging history a little (cf. Hameline, 1991) – maintained that reading *L'école active* and meeting Ferrière at the Fellowship Conference in Territet-Montreux in 1923 was what sparked his vocation as an innovator.

Ferrière's philosophy

It is impossible to understand Adolphe Ferrière's philosophy on education unless we bear in mind that his intellectual output is not primarily educational. It is, in a sense, an anthropology, underpinned by a social philosophy, of which his comments on education form one of the logical components. By this I mean that what concerned the young Ferrière above all, during the period he himself describes as 'metaphysical' (1900–10), was to put the phenomenon of human existence in a context that would give it meaning, and this context was created by the contribution of both the biological sciences and the social sciences, against a backdrop of evolutionism.

AN APPARENT ECLECTICISM

He began his studies at the University of Geneva by first embarking simultaneously (1892–1900) on courses in zoology and comparative anatomy at the Faculty of Science and in 'social economy and political systems' at the Faculty of Arts. Then in

1902 he followed philosophy classes and took courses in history, psychology and the history of religions. In 1905 he was awarded a degree in social science.

This apparent eclecticism is typical of Ferrière. As a student, he was obsessed with the idea of building up a major consolidated theory. He felt he was intellectually capable of this and that his background allowed it: he came from a family in which it was self-evident that a prominent young intellectual with his talents could very quickly, indeed almost automatically, become somebody whom important people would want to talk to. He mixed with these sort of people quite naturally: they were his acquaintances as well as his masters. So at an early stage Adolphe Ferrière acquired a confident manner, along with the certainty of his own worth and an awareness of a legitimate ambition. But at the same time he was a hard worker. He organized his material methodically, read profusely and rapidly, and wrote in the same way. His 1915 thesis, acclaimed by the University of Geneva, was the fruit of ten years' effort. But two articles published in 1910, 'La loi biogénétique et l'éducation' and 'La science et la foi', had already shown clearly how his thinking would develop. The first appeared in *Archives de psychologie*, the 'scientific' journal edited by Claparède. It reflected the desire of the 'all-rounder' to choose one of the specialist schools in which to carry on his work and establish his reputation in the exclusive world of 'scholars': in the event, he chose psychology. The second was written for an international competition organized by *Coenobium*, of which he was one of the winners, and he was delighted to feel his work was appreciated by Henri Bergson, who sat on the jury, and by Théodore Flournoy, who wrote a preface for the winning articles.

Ferrière's saw his two-faceted approach as a continuation of the work of these two thinkers, but he also felt indebted to his 'philosophical mentor in Geneva, Jean-Jacques Gourd'.[33]

JEAN-JACQUES GOURD'S PUPIL

Ferrière's philosophy, as it appears in the two 1910 articles, can be interpreted as the mapping out of an impossible tension. Three constellations of ideas had to be fitted into the same construct. The human universe described by Ferrière is first and foremost based on necessity (the 'laws'), and is determined, indeed pre-determined, by the natural order of things; his master Jean-Jacques Gourd called this 'material co-ordinateness'. But it is also based on obligation (*the* law) from which, in Ferrière's own words, all 'creative spontaneity' just as naturally springs to serve 'the progress of the spirit' and to liberate the higher self through the free acceptance of the order of things, which Gourd called 'practical co-ordinateness'. But there is a third dimension to the human universe, which Ferrière also derives from Gourd, the sacred dimension of that which is 'outside the law', 'that which cannot be co-ordinated', wherein lies the mysterious possibility of human affairs going well or badly. How is it possible to speak at the same time of science, that is of submitting to the 'co-ordinateness' of facts, and of faith, meaning the urge to believe in a fundamental 'inco-ordinateness' which cannot be avoided by those who seek to lend legitimacy to an undertaking that is truly human and therefore, in Ferrière's eyes, truly divine?

In a way, Ferrière had the conviction of a scientist. He believed he could find in science the resources needed to build up a rational understanding of human beings and thus deduce two lines of action. He would first put forward a tightly argued conception of the education of the future and, secondly, provide a 'modern' and 'progressive' interpretation of the religious heritage.[34]

This 'biogenetic' approach may be described as one of the intellectual offshoots of evolutionism which by the start of the century had become the standard way of tackling the life sciences. Ferrière applied it to the development of human beings. His early attempts to develop his view of genetic psychology and psychological types[35] were to be pursued in his works until his unfinished book *L'orthogénèse humaine ou l'ascension vers l'Esprit* (1959) and to be summed up almost definitively in *Notice sur les problèmes de la psychologie génétique et sur les applications de cette science à l'éducation et à l'économie sociale*, which he submitted in 1923 as his contribution to the planning of a genetics institute in Geneva.

A BIOGENETICIST

It is true that he vehemently refused to allow his method to be called 'deductive philosophy'.[36] On this point, Ferrière would have been offended to have been regarded as a scholastic and dogmatic metaphysician, like another thinker to whom he was very close, Jean-Marie Guyau (*Esquisse d'une morale sans obligation ni sanction,* 1903; *L'irréligion de l'avenir,* 1909). In what sense can his approach be said to have a metaphysical objective? In the final analysis, he is trying to explain why this 'energism' common to all living creatures is transformed in humans into an increase in the power of the mind.[37] Why indeed should life be 'a spontaneous attempt at self-creation' in all living creatures?[38]

The central idea here is *biogenesis*. In Ferrière's view, this serves merely to give explicit expression to that which is implicated in the most positive form of experience. He believes in a universal dynamism wherein the human psyche finds both momentum and direction. 'The task of education is to facilitate this movement and to achieve harmony between the human microcosm and the macrocosm'.[39] Ferrière suggests a symbolic reinterpretation of the images offered by established religions – images that he regards as puerile. For him, God is first and foremost that active immanence at the origin of the inward aspiration towards what is most true, beautiful and good and makes it coincide, at its culminating point, with the very order of the universe: 'My belief and my science are one and the same, for I have no metaphysical beliefs and my view of science goes beyond physical matter. Biology teaches me that the movement of life is upwards in the seed and in the mind. Such is my belief. The rest is conjecture and hope.'[40]

Ferrière wrote his thesis in sociology, but this was because he thought he would find the same laws at work – and in particular the one governing progress – in the organization of societies as in the organization of living creatures, especially human beings. An anonymous biographical entry in 1940, which we may presume Ferrière himself to have written, points out: 'He chose sociology for his doctorate, keeping psychology, particularly the psychology of the unconscious, for his much more advanced personal studies.'

THE UNCONSCIOUS

Ferrière did not really use this term in the Freudian sense. Like many others, Ferrière came into contact with psychoanalysis and noticed the extraordinary stir that discussions about the unconscious were causing in his intellectual circle. The 'Journal reconstitué' says that he underwent psychoanalysis with Dr de Montet in November/December 1911. It was only a short experience, but brevity was the rule at that time. Could what he experienced in the guise of psychoanalysis be termed Freudian? Ferrière had serious reservations about Freudianism. The 'pansexual' aspect of Freud's libido theory shocked him: was this what Freud would have called 'resistance'? To what extent did Ferrière 'analyse' his own emotions? In an article written in 1926 devoted to 'the psychological types revealed by dreams' he does speak of 'our work as psychoanalysts', but he also quotes Jean-Marie Guyau's statement: 'Analysis kills feeling' and he is apprehensive about the way analysis can destabilize 'good feelings'. In Ferrière's view, it should be directed only at 'bad feelings'.

These moral categories of 'good' and 'bad' show that Ferrière the teacher was looking over the shoulder of Ferrière the psychologist. He thought that education, like therapy, should be predicated on the superiority of the conscious over the unconscious, the pre-eminence of mind over the basic mechanisms of behaviour. Ferrière was not inclined to confuse psychoanalysis with the glorification of basic human urges. He did not share the libertarian messianism of some of his contemporaries, such as Reich or Neill.[41] Ferrière claimed to be a moderate; Neill's view was that he was 'quite a puritan'.

FERRIÈRE'S ANTHROPOLOGY

Ferrière based his 'psychological' investigations on four major lines of inquiry which he had arrived at through the application of biogenesis as early as 1910.[42] These were: (a) *energism*: like all living creatures, human beings are actuated from within by an *'élan vital'* (an expression taken explicitly from Bergson) which is the source of self-preservation and advancement; (b) *the law of progress* (the subject of his 1915 thesis): this advancement takes place through two complementary phenomena that balance each other out – 'functional differentiation and functional concentration'; (c) *heredity*: the species survives by neutralizing divergent characteristics and achieves variety through the dispersal of divergence; and (d) *recapitulation* (which Ferrière calls 'the biogenetic law'): the development of the individual goes through stages comparable to those undergone in the process of evolution by the species in general.

These four 'theoretical' lines of inquiry are applied to four problems which call for 'practical' research and which Ferrière believed psychology should set about solving. These give rise to new educational principles based on human nature and reason, which are none other than the principles of new education and the activity school:

1. The law of biogenetic recapitulation must be matched by a *new form of education* based on vital interests which will take account of the fact that children progress from a 'primitive' to a 'civilized' phase.[43] This change takes place through a number of stages, the description and number of which vary throughout Ferrière's published work. Twelve distinct periods are given in the table published in 1922 and reprinted in 1946. They are grouped into threes, corresponding to four ages: the sensory phase (early childhood); imitation (later childhood); intuition (adolescence); reason (youth and maturity).
2. Heredity should lead to an *inventory of psychological types* whose names are provided by the biogenetic law: sensory, conventional, intuitive and rational types, combinations of which will give the twelve periods (thus there will be a sensory conventional type, a pure conventional type, an intuitive conventional type, and so on).
3. In combination with this inventory, and taking account of each pupil's ability to progress, the psychologist will provide an *individual diagnosis*, which will be both a prognosis and a set of guidelines.
4. Finally, since the life force in human beings is largely governed by the unconscious and its potentialities, helping the pupil to move *from the unconscious to the conscious level* is one of the tasks of psychology, if it is to be truly 'genetic'.[44]

In 1930, Ferrière once again summed up his theories in a privately published pamphlet entitled *L'avenir de la psychologie génétique et l'éducation*. Two things are striking given the date: first, that more than twenty years after his earliest tentative writings on the subject Ferrière was still using the word 'future' in the title, as if he were still setting out a programme to be followed; and, secondly, that the 1930 pamphlet did indeed only repeat statements he had made in 1909, barring a few details. Between these two dates, Ferrière had written several thousand pages about these four aspects of genetic psychology. But his empirical attempts to verify, and a fortiori to invalidate, his hypotheses as they demanded had been indecisive and fruitless. He was aware of this, and in 1922, when he made this four-point theory the psychological basis of the activity school, he warned his readers, 'counting on their intuition' to make himself understood:

> The fundamental truths set out in this chapter are intermingled with and, so to speak, wrapped up in hypotheses. But even if these hypotheses are less well founded than experimental scientific data, even if they are *not yet* [Ferrière's emphasis] all backed up by statistics or any other objective method of verification that can be expressed in figures, they are definitely much more and something other than mere suppositions. In fact they are rooted in experience, in life, and they are built on experience and life with the prudence and objectivity of a conscious scientific method in the full knowledge of both its power and its limitations.[45]

In 1946, when he was putting together the new version of *L'école active*, Ferrière reproduced this warning word-for-word[46] and the same words ('not yet') were emphasized. The empirical confirmation remained in abeyance. It was up to the readers to trust the author's method when he showed no reluctance to describe it as 'scientific'.[47]

TYPOCOSMOLOGY

Paradoxically, it was in the field of astrology that Ferrière attempted the work of verification-invalidation required by this typology; this was in 1923 and particularly from 1924 when he met K. E. Kraft. In his end-of-the-year review for 1923 he wrote: 'Here is a lead I want to follow up: failure and success attract me equally; what I enjoy is research and verification.' This ambivalence, which it must be acknowledged augurs rather well for a scientific attitude, was in evidence throughout a particularly tenacious investigation which lasted thirty years, becoming tantamount to a regular routine. Ferrière collated and compared thousands of 'birth charts' using a complex statistical system drawn up during his sometimes stormy partnership with Kraft. Whole pages of his diaries are covered with graphic symbols which enabled him to list the attitudes, behaviour and tendencies of people he met or authors whose books he read. All this information was fed into his typology.

A large amount of published material resulted from this research: *Caractérologie typocosmique*, 1932; *Symboles graphiques de la typocosmie*, 1940; *Vers une classification naturelle des types psychologiques*, 1943; and especially the four-volume *Typocosmie*, 1946–55. These books have always been politely ignored or referred to in a fleeting, mocking, outraged or, at the very least, puzzled way. We may indeed wonder why Ferrière chose this field for the research expected of him when it was apparently liable to destroy his credibility among the intelligentsia. But he believed that human history was recapitulated in the life of each individual, and that human events were a reflection of the cosmic order. Besides, he did not mind standing out from the crowd, even if it meant increasing his intellectual isolation.

EDUCATION ACCORDING TO FERRIÈRE

On the other hand, Ferrière's ideas on education were not those of an isolated figure. Deaf he may have been, but he kept his ears open to how children felt and made himself their spokesman. His books aimed at a general readership provided one of the main ways through which the basic themes of new education became known. They certainly contributed to making its premise of everyday contact with children seem normal, trying as it did to set up a climate of trust and sincerity and having nothing in common with the permissive, non-interventionist school of educational thought.

The film Ferrière devoted to the Home in 1929 provides a useful summary of this view of schooling for happy, responsible children.[48] It centres on a group of children who take complete responsibility for themselves, from getting up to going to bed. It is a point of honour for even the smallest children to 'manage by themselves', and the older ones are concerned to help the younger ones without actually doing things for them. Harmony rules in this miniature republic based on the healthy principles of the outdoor life: the children fetch firewood from a nearby forest, work in the garden, climb trees and bathe naked without false modesty. They learn by focusing on topics drawn from daily life, which is the best way of learning about life in general: the words they learn to read are those of everyday objects; the plants they draw and dissect are those they have picked from a meadow nearby; arithmetic is studied by playing at shops or stringing beads to make necklaces. Each of the older children keeps a 'book of life', a catalogue lovingly put together and decorated with the simplest materials where the children file in an orderly fashion various bits of information found by chance. Obviously, the teacher can take a hand in supplying or encouraging this 'chance', but the initiative remains with the children. Individual activity alternates with working together and group explanations. There are no classes or lessons. The emphasis is on the joy of learning, providing one's own discipline and helping others. When energy serves what is good, which is a quality latent in all 'healthy' youngsters, it can be given free rein. Children experience and make the most of their individual talents, allowing the community to benefit from them without restraint. There is no violence, no guilt, no punishment, but this does not mean anarchy. Everything remains 'shipshape and Bristol fashion', to use a nautical expression.

A DOCTRINAL INTERPRETATION

Perhaps we should complain that Ferrière uses this idyllic and necessarily imaginary day to illustrate one by one the thirty points listed in his evaluation of the new schools, published for the first time in 1915 and which he subsequently used to draw up a 'hit-parade' of new schools, topped from 1929 onwards by the Home. But because the points listed also constitute a charter based on the biogenetic view of active childhood, Ferrière wondered about the 'contagious joy' and 'glowing spontaneity' of the Home children:[49] 'Should we consider their enthusiasm for work to be the result of the principles of the activity school, that is of adults respecting their individual personalities, vital interests and capacity for self-education (an extension of the specific self-moulding energy of human morphology, in biology and physiology)?'

At the risk of repeating himself, he concludes his praise of the Home in 1933 by recalling his own theories: 'Life is a vital energy force. The life of the spirit is a vital spiritual force.' He continues with a statement that he made many times: 'Creative energy develops from within.'[50] All Ferrière's 'educational theory' is summed up in that phrase. Even if the 'inside' takes precedence over the 'outside', the negative education advocated by Jean-Jacques Rousseau – not interfering prematurely – is still relevant. And the gardening metaphor is more appropriate than the pottery one: education means letting a plant grow, not modelling clay (cf. Hameline, 1986; Charbonnel, 1991). But this respect for the individual's 'self-moulding capacity' does not mean the teacher should abdicate all responsibility because freedom of the spirit means 'freedom to make free' (1928). Children, drawn towards the good by their 'natural' inclinations,[51] need to be helped, if only to acquire good habits. 'In order to be considered good, a habit must have the effect of liberating the spirit. The idea is to mechanize the lower self in order to free the higher self'.[52]

THE ACTIVITY SCHOOL, A SCHOOL OF EFFICIENCY

This concern with mechanization reveals Ferrière's interest in the modern notion of efficiency. He would not be the last educationist to repeat the well-known statement by Washburne, one of the American advocates of personalized work: 'We must Taylorize teaching in order to maximize education.' It is only an apparent paradox that the champion of a happy, spontaneous childhood should also be an open supporter of scientific work organization.

Ferrière's admiration for Taylor was genuine and he made no bones about it. He shared three of Taylor's principles. The first appeared in Ferrière's work as a slogan for rationalizing costs which he had made a golden rule of the activity school: 'the most useful effects for the least wasted effort'[53] (cf. Hameline, 1987). The second is based on the idea both men had of scientific work organization: only an outside expert could recommend the most efficient methods, through methodically observing and interpreting what workers did. However, for Ferrière such experts were not technocrats blindly applying methodologies; they had to use intuition and reasoning, 'science and common sense'. Ferrière had no doubt that this outside observation would reflect the natural inner tendencies that impelled individuals to make their efforts efficient, because efficiency could not be contrary to harmony and fulfilment. Taylor said he wanted to serve the interests of workers, going against their usual routines if necessary to replace them with more rational working methods. Similarly, Ferrière fervently desired what was good for pupils, wishing to combat the habits inherited from the 'old school' if necessary, but not without replacing them with other habits more liable to 'liberate' the spirit for its higher tasks.

There was one more point on which Ferrière's philosophy converged with Taylor's. Ferrière did not believe that any individual could occupy any place in society. Neither mobility nor the capacity for learning could do away with the 'natural' order of precedence among individuals. The cultivation of pupils' abilities should enable a solution to be found to 'a problem of political economy . . . always putting people in the area where they can be most useful'.[54] Ferrière took this quotation from Marc-Antoine Jullien who in 1812 brought out *L'esprit de la méthode d'éducation de Pestalozzi*. Ferrière, who in 1927 praised Pestalozzi's 'great motherly heart', had then already referred to that emblematic precursor of activity education to legitimize his concern to put 'the right man in the right place'.[55]

A RATIONAL THEORY OF SOCIAL ORGANIZATION

And whether or not some are born to lead and others to obey, the young group leader described by Ferrière in his unavowed self-portrait could hardly fail to uphold this view of economic and social relations. The democrat was also an élitist, but the élitist was sincere in his belief in democracy. Ferrière's work on economic planning (*Pour un plan suisse du travail au-dessus des partis*, 1935) should be looked at in the light of his views on education. He warned against both state control and unbridled capitalism. To combat the law of survival of the fittest which results from capitalism, he suggested a counterbalancing force of co-operatives of producers and consumers, of which he was a fervent supporter. But he made it clear that while political action should henceforth be 'by and for the masses', they should 'not be exasperated, but enlightened and satisfied'.[56] And only 'scientific sociology', in the hands of skilled and trained experts, could enable the will of the state to coincide with the fulfilment of the will of the people[57] through a *dirigisme* combining the same mixture of 'science and common sense' that Ferrière recommended in education.

The legacy of Adolphe Ferrière

Science and common sense: here we have the hallmark of a moderate mind. Politically speaking, Ferrière would be described nowadays as a man of the centre; some might say right of centre, others left of centre. His educational views were equally moderate. If he was virulent in his criticism of the 'traditional school', it was because 'conventional' people eager to submit to the rules of their group and adopt its prejudices seemed to him as dangerous as insurrectionists. Neither could be true agents for progress.

And Ferrière was a believer in progress. The 'law of progress' was a bench mark for him throughout his intellectual career. It can be found in his last books, such as *L'essentiel*, published in 1952. Ferrière's thinking is not conservative, and his lack of interest in the past is striking. The word 'future' is the one that comes up time and again in his writing, like a leitmotif. Although intellectually drawn to meditate on historical processes, he did so only as a philosopher pondering the phenomenon of human existence, disinclined to look at actual events with their own particular patterns and, especially, their circumstantial and random nature.

By assigning a law to progress, Ferrière made it part of the nature of things, seeing it metaphorically as a progression all the more harmonious for being implacable. He made a necessity out of an objective. The reason was that his thinking, while cosmic in scope, remained based on naturalism.

FOLLOWING NATURE

Two views of human nature are superimposed in Ferrière's thinking. The first is not unconnected with the image of 'statics' as opposed to 'dynamics'. It includes human beings as part of an organized whole, both social and cosmic, in which people receive rather than take their place (1952, p. 215). All belong to a type, and it is by conforming to this type which distinguishes them from others that they can make their personal contribution to constructing the whole. But as a result of this distinction, some occupy a higher and others a lower rung on the ladder which is itself 'progressive', meaning hierarchical and divided into types, and all types are not equal. And ultimately this psychological hierarchy was the reproduction of an anthropological and social hierarchy.

The stages of progress described by Ferrière are also the stopping points where some people come to rest by nature. There is a limit to how far people can be educated. 'Ordinary' children are fated to remain 'ordinary' and will develop the potentialities of their type, happy and persevering in their category.

This type-based naturalism and its biogenetic interpretation are probably the most arguable legacy of Ferrière's thinking. Not that there is no regularity in the differences between types, but the network he builds up of these regularities – despite the qualifications he provides – may well give the impression that individual traits are set into a sort of paradoxical inertia. His father warned him against this in a letter dated 24 February 1902: 'You are abstract, imaginative, a creator of ideas, and there is a risk that you may become a visionary in the realm of the unfathomable.' Perhaps Ferrière's greatest mistake was keeping the comparative table of the 'predominant functions of the various ages of childhood and humanity' in the 1946 condensed edition of *L'école active*, a table originally prepared for the 1922 edition. Giving in to his talent for classification, Ferrière forced his philosophy into a mould to such an extent that he laid it open to caricature.

The second view of 'nature' in Ferrière's work corresponds in his mind to the image of 'dynamics'. All living things can go to the limits of their own potential for progress, that is, fulfil their true nature and therefore fit in with the whole. One of his sayings is the Pindaric maxim beloved of the Stoics of Antiquity: 'Become what you are.' In his personal copy of *La liberté de l'enfant à l'école active* (1927), Ferrière corrected this in his own hand to 'Become *who* you are'. The biogenetic law, according to which the development of the individual goes through stages comparable to those undergone by the species during evolution, explains both versions by seeing them as part of the natural order of things. Thus freedom is the crowning glory of the progress achieved through evolution. It is basically 'liberation': free individuals are those who have managed dynamically to rid themselves of everything that prevents them from coinciding with what is best in them, as nature made them, because, barring accidents, nature cannot have made them badly.[58]

Starting from 'instincts, which are fundamentally normal and healthy',[59] the spirit must increase its power. This is what constitutes progress. But when it has increased its power, it will be observed that it has only done what came naturally. Yet nothing is decided in advance, because it is possible for the spirit not to increase its power.

Modern neo-stoicism

There is an indisputable grandeur in this modern neo-Stoicism, in which the enigma of human freedom is set out in terms that are both strict and generous. Ferrière's 'spiritualism' is a plea for energy far removed from pious sentimentality.[60] He constructed an anthropological system which was admittedly assembled in haste and shaped more by imagination than by empirical investigation, but he does see human existence in terms of a bold and bright progression. The metaphor of the 'rise' to greater power of the spirit might well prove a source of inspiration today, now that historical materialism is foundering and ordinary materialism is taking over our daily lives, despite the cynicism fed by the shortcomings of an excessively naïve view of progress.

Ferrière was not a cynic by any means, but he was not naïve either. If his faith in the possibility of the triumph of spiritual energy over entropy and the forces of dissociation remained intact after two world wars, it was not a blind faith. Ferrière was a man who had hope, and not just a vague longing but the hope that things would change for the better. If necessary, he was even willing to 'hope against hope', because he believed that hope was the driving force behind education. He wrote the last lines of *L'essentiel* on 15 May 1951. On the same day he suffered a stroke which prevented him from continuing his intellectual masterwork. So in the conclusion to *L'essentiel* Ferrière was, in a way, leaving us his last words when he wrote: 'It is not a question of being optimistic, but of seeing clearly and taking action. On the scale of millennia, human awareness of the power of the spirit is only just beginning.'

Notes

1. 'Mon grand journal' (1930–60) is a record of his thoughts and reading. It is made up of fourteen volumes, each of 300 to 400 pages.
2. Adolphe Ferrière, *La pratique de l'école active,* p. 39, Neuchâtel/Geneva, Éditions Forum, 1924.
3. Adolphe Ferrière, *L'école sur mesure à la mesure du maître,* p. 155, Geneva, Ateliers Abar, 1931. Entries in his 'Petit journal' at the time when he was writing *L'école active* (1921) show that at the age of 40 Ferrière had not yet read systematically either Rousseau or Pestalozzi, and he was not afraid to admit it. In fact, he was rather proud of it. During his university studies Ferrière devoted very little time to educational theory, in the sense of the official teachings about education. It is true that he followed Paul Duproix's course at the Faculty of Arts during the summer semester of 1902, but this only lasted a few weeks and does not seem to have had any noticeable effect on the young Ferrière.
4. From his early youth, Adolphe Ferrière started to keep a daily record of his life. When his house burned down in 1918 all his notebooks up to that date were destroyed. Ferrière was so attached to this record that he reconstituted as far as possible the lost notebooks from his childhood and young adulthood with the help of correspondence and accounts by his family.
5. Adolphe Ferrière, *L'éducation dans la famille*, p. 3, Lausanne, Éditions du Secrétariat Romand d'Hygiène Sociale et Morale, 1935.
6. Adolphe Ferrière, 'Un destin en marge des autres', p. 13, 1953 (unpublished MS.).
7. Adolphe Ferrière, *L'autonomie des écoliers, l'art de former des citoyens pour la nation et pour l'humanité,* p. 68, Neuchâtel/Paris, Delachaux & Niestlé, 1921.
8. Ibid., p. 57.
9. Ibid., p. 61.
10. It may seem amusing nowadays that in the official photographs of the Fellowship's conferences, Ferrière is often seen with his shirt collar wide open whereas all the other gentlemen, both officials and participants, are wearing ties.
11. Grunder (1993) has made a survey of the heads of the new schools in Switzerland and shown that, overall, they were good managers with open-minded attitudes, but were far from sharing the militant zeal of the Fellowship's members.
12. Adolphe Ferrière, *Projet d'école nouvelle,* Neuchâtel, Foyer Solidariste, 1909.

13. Ferrière, *La pratique . . .*, op. cit., pp. 36–7.
14. Gerber (1982) notes that in the 'Journal reconstitué' Ferrière asserts that the visit to Demolins probably took place in January 1900. But subsequently he always maintained that his International Office of New Schools was founded in 1899.
15. His father, Dr Frédéric Ferrière, an important figure in the International Red Cross, went as far as imagining that he might head a school for delicate children at the Leysin health resort, but Adolphe was not enthusiastic.
16. In a collection of sonnets published under the pseudonym of Dr Frédéric Emmanuel in 1926, Ferrière speaks to his mother and father in *Parentibus meis*:

    'Mother, you gave me the muse of poetry,
    The imagination that can breathe life into all things;
    You gave me love and a burning dream,
    Broad visions and the gift of prophecy.
    Father, you gave me a scientific mind,
    An upright character capable of self-control.
    Father, it was you who taught me to teach myself:
    What stoicism there is in my soul I owe to you.'

17. At 2.30 a.m. during the night of 23/24 March 1902, he wrote to his parents: 'I have just spent one of the finest moments of my life. From half past ten until just now I was chatting continuously with the headmaster . . . this evening I had a real glimpse of the scale of his genius, and I feel crushed by it. I will talk to you about it. It is as if a veil had been rent apart in the sky and I could see a second sky behind; I have the feeling that a prophet has come down from heaven and spoken to me. . . .'
18. Ferrière, *L'école sur mesure . . .*, op. cit., p. 73.
19. Adolphe Ferrière, *La forge de l'esprit, sonnets*, p. 219, Nessonvaux (Belgium), Imprimerie de Nessonvaux, 1936.
20. Ferrière, *La pratique . . .*, op. cit., p. 61.
21. Ibid., p. 82.
22. Isabelle Bugnon, a teacher of natural science, niece of the great naturalist and thinker Auguste Forel, met Adolphe Ferrière in 1908. They became engaged in 1909 and were married in 1910. Isabelle Ferrière was her husband's tireless assistant and his regular interpreter because of his hearing problems. Elisabeth Huguenin (1885–1963), who came from Locle, had been Paul Geheeb's assistant at the School of Humanity and then had a short, inconclusive spell (1919/20) as head of the Vinet School in Lausanne. Out of work, she accepted Adolphe Ferrière's offer to take part in the Bex experiment. Later she taught at the École des Roches, in France, and wrote several books about the education of women (cf. Käppeli, 1992; Chaponnière, 1992).
23. Several poems from his two collections (*Dieu dans l'homme*, 1926, and *La Forge de l'Esprit*, 1936) tell of his almost carnal desire to be surrounded by children:

    'My happiness can be summed up in few words
    I only live because of your kisses,
    Sweet little children who smile so easily,
    And because of the gentle singsong of your voices . . .
    My sadness can be summed up in few words:
    I will no longer hear your singing and laughter . . .
    And the hardest blow of my awful fate,
    Is that your kisses have been taken from me too.'

    In a three-part poem written in 1936, Ferrière makes a discreet but heartrending reference to his wife's accident which deprived him of the little girl he had dreamed of. He writes of 'that other love' he had felt for one of the orphans at the Home:

'Clutching her in your arms dissipates your sadness,
You are born again when she returns your kisses. . . .'

24. It was because of this sharp and ironic criticism of state schools that many people saw Ferrière as a belittler of teachers. In the new edition of 1947, he felt obliged to make it clear that he had great respect for the profession.
25. This fire, in which a servant died and all his intellectual output disappeared, affected Ferrière so deeply that he wrote an account of it which he read to the children at the Home more than ten years later. In his 1926 collection of poems, he devoted no fewer than six sonnets to the incident. On 26 September 1946 he wrote to Roger Cousinet: '30,000 files of information and observations, a huge library of books scrupulously annotated by myself: more than twenty years of relentless efforts, all gone up in smoke in one night (with four manuscripts ready for printing)' (cf. Cousinet, 1960). A profile of Roger Cousinet was published in *Prospects*, Vol. 17, No. 4, 1987, and is reprinted in this volume.
26. For Ferrière's part in the creation of IBE, see Stock, 1979.
27. Adolphe Ferrière, *L'école active*, Neuchâtel/Geneva, Éditions Forum, 1922.
28. J. Moll (1989) has traced the history of the psychoanalytical movement of the 1920s and its decline following a period of intense activity.
29. Raymond Buyse, founder of the Laboratory of Experimental Pedagogy in Louvain, wrote (Buyse, 1935, p. 49): 'We have suggested describing as "experiential" this tendency, so fashionable in advanced circles, to become intensely and generously involved in the work of education, which is seen as the great "social adventure". . . . The theoretical side of this movement purports, immodestly, to be scientific; but we should understand by this that it takes its inspiration chiefly from the bold conclusions and rash hypotheses of the sciences related to educational theory: biology (law of recapitulation), child psychology (laws of interest), sociology (interpreting children's minds in relation to primitive mentalities). . . . It is not just a question of making vague analogies or inconsistent approximations. What we observe most often is dreadful confusion between experimental science and a sort of philosophy which is said to be scientific but which in fact is not science at all.' Ferrière was obviously the target of this harsh warning.
30. A moving document is kept in the archives of the Jean-Jacques Rousseau Institute: a note Ferrière wrote to Béatrice Ensor, the Fellowship's chairwoman, during the meeting at the Nice conference in 1932 at which the organization's principles were being revised: 'Let us at least save the first article.' This was the 'spiritualist' article written by Ferrière in Calais in 1921, giving education the role of 'increasing the supremacy of the spirit in each human being'.
31. In 1929 a group of friends decided to set up an 'Adolphe Ferrière fund' to finance the publication of his books, but response was very poor. In 1959 the Association of Friends of Adolphe Ferrière brought out a three-monthly photocopied newsletter called *L'Essentiel*, with the aim of studying and publicizing his work and taking it as a basis for further research. However, the 'research centre' did not survive its founder, Roger Munsch.
32. A profile of Maria Montessori was published in *Prospects*, Vol. 12, No. 4, 1982, and will be reprinted in the third volume of this series, and one of Célestin Freinet appeared in *Prospects*, Vol. 10, No. 3, 1980, and is reprinted in the present volume.
33. Adolphe Ferrière, *L'activité spontanée chez l'enfant*, p. 104, Geneva, Éditions Internationales Populaires, 1922.
34. This was typical of a mood that was extremely common in French-speaking Switzerland in intellectual Protestant circles (Berchtold, 1964). In a recent thesis Fernando

Vidal (1989) showed the extent to which Jean Piaget was steeped in this atmosphere as a young man. From 1915 to 1919, Piaget actively championed this new interpretation of the religious heritage and Ferrière (in *L'Essor*, 1919) regarded this very young man as the person who would bring about the prophetic reconciliation of science and faith that would be the hallmark of the twentieth century.

35. In 1922 (in *L'activité spontanée,* op. cit., p. 247) he referred enthusiastically to Jung's classification. But with his usual spark of rivalry, he was at pains to point out that his own typology had been devised first.
36. Adolphe Ferrière, *L'avenir de la psychologie génétique et l'éducation,* p. 10, Geneva, Société Générale d'Imprimerie, 1930.
37. This expression had already been used by the philosopher Jean-Jacques Gourd (*Le Phénomène*, 1888), whom Ferrière considered as his master.
38. Ferrière, *L'école sur mesure* . . ., op. cit., p. 11.
39. Ibid., p. 10.
40. Reply to the *Coenobium* questionnaire, published in 1912 and reprinted in the 2nd edition of *La science et la foi* (Neuchâtel, Delachaux & Niestlé), p. 58.
41. A profile of Alexander Neill was published in *Prospects*, Vol. 18, No. 2, 1988.
42. Ferrière, *L'école active,* op. cit., p. 215; *L'école sur mesure* . . ., op. cit., p. 9; Adolphe Ferrière, *Notice sur les problèmes de la psychologie génétique et sur les applications de cette science à l'éducation et à l'économie sociale,* p. 8, Geneva, Imprimerie du Commerce, 1923.
43. Ferrière liked to repeat a witticism which he attributed to Stanley Hall: 'In order to become a good civilized person, you first have to be a good savage.'
44. It is interesting to compare the meanings Ferrière and Piaget gave to the adjective 'genetic'. On the surface the two Genevans had nothing in common. Piaget was completely scornful of Ferrière's theoretical work; he had broken with the philosophical-religious speculation of his activist youth for which Ferrière had admired him. Ferrière's open cosmo-vitalism and spiritualism, the vibrant, oratory twist to his writing, the lack of empiricism and the constant confusion between observation and prescription could not help but irritate Piaget, especially since they reminded him of everything he wanted to get away from. In *Biologie et connaissance*, Piaget (1967) showed how little epistemological interest he had in the teleological notion of 'progress', overlaid as it was with value-judgements. 'That said,' he adds, 'the problem is therefore to find objective criteria for a hierarchy of types of organization, in other words, an evolutive set of vectors' (Piaget, 1992, p. 123). He then borrowed from Rensch the idea of increasing 'openness', 'in the sense of increasing the number of possibilities acquired by the body in the course of evolution', with knowledge elevated to the status of 'necessary culmination' of this 'progress', because 'it multiplies the range of possibilities'. Here we are both very close to and very far from Ferrière's ideas, especially as, in the same book (Piaget, 1992, p. 92), Piaget refers the reader to Baldwin's 'recapitulative' theories which are also mentioned by Ferrière. In this respect, Piaget describes experiments carried out with Genevan schoolchildren aged 7 to 9, whose interpretation of some physical phenomena 'corresponded' to those of the adult 'common sense' of Aristotle's contemporaries. The transmission of knowledge, on the level of the human species, was then thought indeed to pass through stages whose equivalent could be seen in children's cognitive development.
45. Ferrière, *L'école active,* op. cit., p. 215.
46. Ibid. (1946 ed.), p. 29.
47. In 1941, Piaget spoke of the temptation to 'consider reality as an irreversible flow and the spirit as the power to free oneself from time and space'. But in order to show how

much he had changed from the metaphysical position he had held in his youth and which Ferrière still maintained, he added: 'But why should we set up improvised subjective systems on an individual basis when we can contribute, in however small a way, to the joint effort of scientific research?' This quotation was brought to my notice by Fernando Vidal, whom I wish to thank for his friendly assistance.

48. Apart from the milkman, Ferrière is the only adult to appear in the film. This self-promotion may be interpreted as propaganda on the part of one who was to have his film shown to tens of thousands of people (it was certainly one of the most widely shown educational films between 1930 and 1940). It may also be seen as a symbolic compensation – and indeed a rather touching one – for not being able to achieve in real life what was captured by the camera, especially when we recall how painful and frustrating this was for Ferrière. The manageresses do not appear either.

49. Adolphe Ferrière, 'Un foyer: "Chez Nous"', *Pour l'ère nouvelle,* Vol. 12, No. 86, 1933, p. 79.

50. This was originally Pestalozzi's idea. Ferrière made it the basis of the activity school.

51. 'All that is good, healthy and harmonious in human beings is the legacy of millions of ancestors who adapted their inner being to the immutable laws of nature' (Ferrière, *L'éducation dans la famille,* op. cit. (1935 ed.), p. 26). One of the sonnets in the collection of poems *Dieu dans l'homme* (1926) is entitled 'The Child is Born Good'. It takes the form of a dialogue with Rousseau, who is shown to be right.

52. Ferrière, *L'éducation dans la famille,* op. cit., p. 20. Ferrière takes from William James the distinction between the 'higher self' and the 'lower self'. (Adolphe Ferrière, *Trois pionniers de l'éducation nouvelle,* p. 24, Paris, Flammarion, 1928.)

53. Ferrière, *L'école active,* op. cit., p. 286.

54. Ibid., p. 285.

55. Printed in English in ibid., p. 285.

56. Adolphe Ferrière, *Pour un plan suisse du travail au-dessus des partis: essai de sociologie pure appliquée à l'actualité,* p. 225, Lausanne/Zurich, Guilde du Livre Gutenberg, 1935.

57. Ibid., p. 144.

58. In an article in *L'essor* in June 1919, 'Le problème de la philosophie nouvelle', Ferrière wrote: 'In sum, statically speaking, we are what we are capable of being, what we cannot fail to be. We are predetermined. Dynamically speaking, on the other hand, we are a force, a cosmic energy, a spark of spirit, a fragment of that great light of which we have an intimation and which we call Spirit.' Ferrière added that while statically a life might be worthless, 'from the point of view of spiritual dynamism' it might be called upon to be 'a force which may, by example alone, engender other forces'. In this way the dynamism of the spirit could correct the unavoidably static part of the individual's heredity, social standing or circumstances. Ferrière knew that, 'statically speaking', by 1919 he was handicapped by his deafness, by the previous year's fire and by his financial ruin. How, with all those disadvantages, could he be anything but 'worthless'? This was the challenge that made him choose the dynamic 'jolt' through which his true worth would be revealed, without changing his static 'worthlessness'. However, when others made all values dependent on the 'static' aspect of things and places, they stigmatized in Ferrière the champion of a spiritualism that involved submitting to the social order as if it were a fatalistic *Diktat* of 'nature'. And the detractors of his spiritualism did not fail to do this.

59. Adolphe Ferrière, *L'essentiel, introduction au symbolisme universel des religions,* Lausanne, Held, 1952.

60. Adolphe Ferrière, *Cultiver l'énergie,* Saint-Paul, Éditions de l'Imprimerie à l'École, 1933.

Selected works by Adolphe Ferrière

A virtually exhaustive bibliography of the 2,000 or so articles published by Ferrière between 1904 and 1960 was drawn up by Eva Stroot-Kiraly in 1982. A bibliography of his books was edited and abridged by Rémy Gerber in 1989. These unpublished documents may be consulted in the archives of the Jean-Jacques Rousseau Institute, University of Geneva.

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CÉLESTIN FREINET*

(1896–1966)

Louis Legrand

An exceptional life

Célestin Freinet was born on 15 October 1896 at Gars, a small town on the slopes of the Alpes Maritimes in France. His early days, like those of any village child of the time, were spent among labourers in the fields, in a poor region where the climate, despite the proximity of the Mediterranean, was harsh. He knew all about looking after sheep: his wife Élise wrote of him that 'his experience of shepherding was to be the leitmotif of Freinet's educational experience' (Élise Freinet, 1977). After completing primary continuation classes in the town of Grasse, he enrolled at the Nice primary-teacher training college. At the outbreak of the First World War, Freinet was called up, and in 1915, at the age of 19, he was severely wounded at the Chemin des Dames, and was decorated with the Croix de Guerre and the Légion d'Honneur. His convalescence, in one hospital after another, lasted four years. Wounded in the lung, he never recovered completely, and suffered throughout his life from a shortage of breath which he himself would say was partly responsible for the nature of his educational innovations, in which pupil activities took the place of the habitual 'chalk and talk' of the teacher.

In 1920, Freínet was appointed assistant master at the two-class school of Bar-sur-Loup, a town of 1,000 inhabitants in the Alpes Maritimes, not far from Grasse and Vence, in that picturesque and, in many places, wild hinterland region of valleys, gorges, olive groves and barren mountains. This region, now much frequented by tourists, would be the setting for Freinet's work as a teacher and militant. It was from this village school that the newly qualified teacher would at one and the same time introduce school printing presses, lay the foundation for a national movement through his writings in professional and political journals, take part in the international meetings on *éducation nouvelle*, make the acquaintance of the great educators of the time – Ferrière, Claparède, Bovet, Cousinet – and read the classics of contemporary educational theory, while at the same time studying for the primary-school supervisor's examination, which he did not in fact sit; all this before distancing himself definitively not only from traditional educational theory but also, despite the revelation which Ferrière's work was for him, from the 'new' education (Élise Freinet, 1968).

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* The author's original title for this essay was: 'Célestin Freinet: A Creator Committed to the Service of the Popular School'. – Ed.

He also found the time to involve himself in the development of his native village, where he founded a workers' co-operative to bring electricity to the community. He became an active member of the communist trade union and the Communist Party, and in 1925 he visited the USSR as part of a union delegation. There he met Krupskaya, Lenin's wife, who was Minister of Education. These union and political activities profoundly influenced his emerging conception of popular education, to which we shall return later.

By 1928, when Freinet was transferred with his wife Élise from Bar-sur-Loup to Saint Paul-de-Vence, the main lines of his work had been laid down: printing, interschool correspondence, the school co-operative and, at the national level, the Coopérative de l'Enseignement Laïque (Secular Education Co-operative). Freinet was by that time well known both nationally and internationally because of the congresses he attended or organized.

Between 1929 and 1933 the Freinets developed and enlarged the movement they had founded. But Saint Paul-de-Vence was not Bar-sur-Loup; the little town was already a flourishing tourist centre, and the arrival of a couple of communist teachers was all the less welcome in that their activities, both national and international, were developing apace.

A murky business involving blocked toilets that were left uncleaned gave the right-wing town council the pretext it needed to request and obtain the removal of the troublesome teachers: it was unthinkable that in their unprompted writings children should cast aspersions on important officials! The year 1933 would see the rise in France, as in Germany, Italy and Spain, of extreme right-wing movements. The Freinets were transferred back to Bar-sur-Loup but did not accept the post despite the warm welcome given to them by both parents and children. They resigned and from then on devoted their time to building up the Secular Education Co-operative movement, which became a veritable industry for the production of teaching materials and the publication of works on education.

Thus was born the idea of a free experimental school. In 1934 and 1935 Freinet succeeded, with the support of the movement, of political friends and of the left-wing press, in building his own school in Vence, himself lending a hand in the construction. The site was somewhat isolated, on a hillside overlooking a little valley and reached by a stony path. The school consisted of simply constructed single-storey buildings, surrounding a shady playground with a pond in the middle. The classrooms were spacious, painted mainly in green and white. The children were mostly boarders, and were drawn from underprivileged social groups or families in difficulty. 'Most of them are the children of Parisian labourers, social-service referrals, children of schoolteachers who most often came to these parts for reasons of health, plus four or five children of well-to-do families who had every faith in us' (Élise Freinet, 1968). There was sunshine and that fragrant southern country air characteristic of the hinterland of Nice.

The years 1939 and 1940 saw first the threat and then the outbreak of the Second World War. Freinet, as a known communist, was considered to be a danger because of possible subversive activity by his organization. At the time of the Nazi–Soviet pact, Freinet was arrested and sent to a concentration camp, then released on probation. While the war lasted he was first a member and then chief of the Maquis in the Briançonnais. At the Liberation he became President of the Liberation Committee of the Hautes-Alpes and resumed his activities in Vence. In 1948 the Secular Education Co-operative became the Institut de l'École Moderne. It set up its headquarters in Cannes and became an important centre for the production and distribution of teaching materials. In 1950 Freinet was expelled from the Communist Party, with whose policies he no longer agreed. This caused a stir within his movement, which had become important both nationally and internationally, and its congresses became lively pedagogical confrontations. Freinet died in Vence in 1966. The movement continued after his death and Élise Freinet kept alive the memory of her husband.

To arrive at a better understanding of this exceptional personality, we may recall some of the determining factors in his life: a youth spent among the peasants of Haute-Provence, which greatly influenced his very intuitive, concrete conception of education; Haute-Provence itself, which he never left, and which is characterized by a deep sense of life and the art of living that survives there despite the urban and industrial development that has taken place along the coast; his devotion to the cause of the people and his sense of social justice which led him to conceive of his educational purpose as being the intellectual liberation of the working class and led him to join, and later to fall out with, the Communist Party; his organizational ability and his quiet tenacity, under the most difficult physical, psychological and often financial circumstances; his learning and his curiosity, always on the alert for anything that technical and conceptual innovations had to offer; and his love for humanity and the cordiality which struck all who went to visit him, among whom I have the honour to be numbered.

The educational innovations that we shall discuss assume their full significance only in the light of this personality. Education was for him a concrete activity, to be experienced, in his words, as *techniques de vie* (techniques for living) in the service of the liberation of humanity.

The originality of the 'Freinet techniques'

Élise Freinet (1968) has shown clearly how, in the aftermath of the First World War, the Bar-sur-Loup experience enabled Freinet to absorb and then transcend prevailing ideas in the new educational movement that he led.

First of all there was the pressing physical and psychological need to get out of the classroom and go in search of life in the rich environment of the nearby countryside and among the rural crafts still practised there. The first innovation was therefore the class outing to observe the natural and human environment. The impressions brought back to the school were first discussed, then set down in writing. The resulting texts were corrected and improved, and provided a basis for the learning of the traditional basic skills, which thus became a practical tool for improving communication. Nothing in this goes beyond Decroly and his study of the environment, but Freinet does not follow Decroly right through.

The theory of psychological development by phases linked to the major functions of life that underlie the systematic organization of the study of the environment – food, shelter, safety, human solidarity – seemed to Freinet to impede the emergence of the real interests of the child. He believed that the study of the environment takes on its full meaning only in the effort to act upon it and transform it (Vuillet, 1962). It was therefore soon expanded and enriched in his thinking by two complementary dimensions: first, by means of individual projects brought into the class by pupils wishing to acquaint their schoolfellows with events that had impressed them and in which they had participated, whence the 'free text'; secondly, the 'school newspaper' circulated in the family; and thirdly, above all, 'inter-school correspondence', whereby other schools were informed of the substance of these individual reports, democratically selected in class and edited by the group before being sent off. Communication, equivalent to socialization, became the instrument *par excellence* for access to the written word. Thus the desire to communicate transformed the study of the environment into meticulous observation for the purpose of communication with others outside the immediate setting, and identified and created the technical means for such communication, such as the 'school printing press' and the 'linocut'. Study of the environment, printing, newspaper and school correspondence became the first tools of a pedagogical revolution, while the tape recorder, the cine camera and, most recently, the video camera were later to supplement the technical resources for this form of communication, which has become the concrete objective in learning to write and making page layouts.

A similarly radical transformation took place in the study of arithmetic. In Freinet's view, arithmetic must be a tool for practical activities, justified no longer by access to abstract skills with numbers and numerical operations, but by the measuring of fields, the weighing of produce, the calculation of a cost price and of interest owing or due. School arithmetic must therefore be immersed in the life of the community so as to become 'living arithmetic'. The class itself, conceived as a 'technique-for-living' environment, must provide the basis for these mathematical activities. The printing press, the school newspaper, inter-school correspondence, excursions to distant places, all cost money and, in poor communities, the local authority cannot be relied on to provide funds. Another source of revenue must therefore be found. The school co-operative was thus a response to a twofold need to motivate the study of arithmetic and to provide work for the school workshops, and it developed naturally into a focal point for thinking things out, preparing projects, making decisions, keeping accounts and assessing possibilities. To work properly it needed elected officers and periodic meetings for discussions and to monitor progress. School communication techniques thus become an instrument of civic education through action rather than through lectures about remote institutions which can only be given concrete meaning through the daily working of the school itself.

The transformation of learning (1956)

These main lines of emphasis define the framework within which activities take place, but they do not provide the key to specific, indispensable subjects of study: reading, writing, spelling and arithmetic.

READING

The basic desire to communicate was to give rise to an original method of learning to read. The technique used in France between the wars was one of artificial progression from sounds to letters, from letters to syllables, from syllables to words and from words to sentences. Under this system, which teaches pupils to combine only pre-determined elements, wall charts are`used which the learners are asked to 'decode', chanting in unison 'C-A-T, cat', etc. The words used are those that lend themselves to this artificial process: 'mat', 'hat', etc. The reading texts are contrived and infantile, at all events completely alien to the real experiences of life. The basic difficulty then is how to proceed from such formal gymnastics to the reading of real texts. The gap is sometimes so wide that learners have difficulty in moving from decipherment to actual reading, that is, getting at the meaning. This brings to mind a story told by the French educator Alain: a man on a train is 'reading' a newspaper and when his neighbour asks him, 'What's the news today?', he replies, 'I don't know, I'm just reading!' Freinet thought this a mind-deadening technique. Reading is a search for meaning, which is why he was so interested in the techniques and theories of Decroly: a text is not perceived synthetically, letter by letter; but globally, as Gestalt psychology shows. This natural property of perception should therefore be put to use in learning to read: this is the basis of the 'look-and-learn' method, in which the learning proceeds from words, perceived and recognized as wholes, to syllables, the products of the breakdown of words by recognition of similarities, and finally to sounds discovered in the same analytical way. This can be the starting-point for composing new words and for writing. These are the elements of the analytic-synthetic method which Freinet came upon and from which he drew inspiration, while stepping outside its original limits. The approach to a written text must first of all be a search for meaning. Thinking in this respect along Rousseauian lines, Freinet considered that a text is first of all the product of a will to communicate. Seen thus, reading is inseparable from writing, but the writing of meaningful words and phrases not abstract sounds. He therefore used the look-and-learn method from his own perspective, in which free texts or, at a more basic level, free oral expression come into their own. The children tell a story which the teacher writes down in simple words. This story is 'read' from the blackboard and copied, and file-cards of words made from it are stored and used to compose new stories; another way of using these cards is to group them by similarity of sound, for example by collecting together the words with 'ra' or 'ly' in them. This breaking down is not artificially induced. It comes about in its own good time when the child, of his or her own accord, discovers and needs it. The printing of texts by the trained team and, very soon, by the authors themselves, rounds off the analytical aspect while at the same time helping to ensure communication through the school newspaper and its outside distribution. This process also brings out the fundamental distinction between systematically and abstractly constructed learning and a spontaneous form of learning that involves feeling one's way by trial and error toward a specific goal. We shall return to this later.

WORK-ORIENTED READING AND THE WORKING LIBRARY

Once reading has been acquired as a technique, in fact while it is being acquired, Freinet invests it with its full meaning. Reading, for him, does not mean the repetitive reading, under supervision, of passages selected by the textbook author or the teacher. Reading is going in search of the text that is needed, whether for amusement or, above all, for action. Reading, as a technique for living, is above all, in Freinet's words, *lecture travail* (work-oriented reading) as opposed to 'hashish' reading that detaches the reader from reality and immerses him in fantasy. For this reason the Secular Education Co-operative published booklets accessible to children of different ages where readers could find, after looking them up in a so-called 'working library' file, texts that enabled them to examine a subject in depth. This kind of reading fits in well with a more thorough approach to the study of the environment, can enrich the information received through inter-school correspondence, and may also help in the preparation of the 'pupil lecture', an oral presentation, illustrated with pictures, slides, etc., given before an audience of classmates.

WRITING AND WRITTEN EXPRESSION

The use of printing as a means of education through communication was without doubt the central innovative element as far as language was concerned. It was probably no accident that this technique was invented by Freinet, the working-class militant. Print shops and book-printing works were the most highly regarded places of employment in the early working-class movement. Printing is manual labour by means of which thought takes material form and is diffused, but the print shop is also the place where correctness of language is at a premium and is, as it were, held sacred. Printing is a discipline: print shops are today perhaps the last refuge of correct spelling and punctuation, and must have been even more so in the years when Freinet was introducing printing into the school. The desire to print is the desire to communicate writ large. Functionally speaking, printing means analysing language, letter by letter, and abiding by the rules of spelling. Starting with free texts, discussed and amended collectively, the pupil-printer is brought face to face with the need for readability: misprints are no longer just mistakes incurring the censure of the teacher alone but obstacles to public communication, which it therefore becomes a point of honour to avoid. The rules of spelling and grammar, to the extent that they enable mistakes to be identified, become practical necessities. The learning of the skills of typesetting and printing gives concrete shape to the concepts of division of labour and co-operation.

SPELLING AND GRAMMAR

But how can one avoid mistakes without knowing the rules and the reasons for them? Freinet is not unmindful of the need to supply missing knowledge at the right time. As far as possible pupils remain independent, consulting dictionaries and grammar books, and making use of file cards for self-correction. When the need arises, however, the teacher does not hesitate to 'give a lesson', but this lesson will differ from traditional teaching in that it will not be the next step in an abstract, theoretical progression but will arise from observed needs: how do you spell such and such a word; do you write '-ay', '-ey', '-eigh' or what?

Any reinforcement exercises will be closely related to the concrete reality of the task and, above all, the memory will not be burdened with abstract rules: trial and error and words of encouragement will often be enough. When they are not enough, and only then, a lesson may be required. Freinet relies mainly on pupils absorbing correct usage through the practical experience acquired in the production of utterances. He even raised the provocative question as to whether grammar serves any useful purpose. Objective experimental studies have now shown that a large part of grammar as taught was in fact useless, resulting in persistent misapprehensions and non-retention of the subject-matter (Roller, 1948; Dottrens, 1953; Legrand, 1970).

LIVING ARITHMETIC

As pointed out above, mathematics could 'come to life' if operations arose out of the real needs of the school. The traditional study of arithmetic in elementary school and, to an even greater extent, mathematics at the secondary level, is a world apart, totally abstract and formal, which is why the majority of learners see it as an artificial, incomprehensible game. Freinet sought to immerse the study of mathematics in life. This is why measurements became its main tool and also why, to take root, it required the concrete activities of making and growing things, rearing animals and marketing produce – the measuring of length, volume, weight, problems arising in the feeding of rabbits and poultry, the purchase of seed, the sale of field and garden crops – all of them opportunities to perform 'living arithmetic'. Of course, here, as in the acquisition of language skills, the rules and the reasoning behind them had to be learned, with the difference that, in these new conditions, such rules did not appear out of the blue but were perceived as necessary to the solution of the practical problems posed by gardening and workshop activities, organizing a visit to correspondents or dispatching inter-school correspondence.

Freinet was not indifferent to the arrival on the scene of modern mathematics, and their formal, game-like character, even with the use of material such as that of Dienes or Papy, caused difficulties for him. Élise Freinet, for her part, was very well aware of the potentially stimulating nature of the free play of purely mathematical reasoning. Freinet was unsure of himself in this area, in which his writings are less rewarding than those dealing with language and communication.

SCIENCE, HISTORY AND GEOGRAPHY

In the traditional syllabus, these fields of knowledge are treated as separate subjects, all bookish in nature (except for science, which appears more concrete to the extent that science teaching should preferably be grounded in experiment). Nature study or general science – the *leçon de choses* – was introduced in France in 1880 by Jules Ferry, following the American example. In practice, such lessons at their best do in fact begin with an object or an observed fact, but the choice of subject is arbitrary and imposed by the sequence followed by the textbook. Observations are carried out under supervision by the group as a whole. The observed facts – perceived appearance, measurements of movement or changes in volume or weight, etc. – are simply noted, but the explanation is provided by the teacher. A ready-made pattern soon takes the place of observing and handling things. A summary is provided and learned (Legrand, 1960).

On the same principle as with language and arithmetic, Freinet insists on starting with concrete observations made in the real world: the study of the environment is once more the point of departure. But for Freinet observation is not an end in itself: the need to understand and the need to act are paramount. For him, science is not a pre-existent body of theory to be taught dogmatically, but a progression towards objective knowledge, requiring to be organized. The point of departure is wonderment, the need to share that feeling with others and, simultaneously, to look for an explanation; that effort to find explanations, conducted through discussion and the collective invention of methods of proof, constitutes the follow-up: in other words, the most important thing for him is to create question-provoking environments. The teaching of science must be rooted in technical activities, and so the workshops where useful objects are made, the school farmyard and garden are the principal environments. Skills, particularly craft skills, which are easier to acquire than industrial techniques, are also for Freinet the beginning and the core of 'complexes of interests' in which oral and written communications function as instruments of that collective investigation.

History and geography are taught on the same principles. Although the subject-matter of history is remote in time, and geography deals with distant lands, the essential point is still to grasp the constants, of history in general and geography in general. Thus the starting-point, for these subjects as for the others, will be the environment, the exploration of traces of human activity and significant places.

Learners will try to reconstruct the history of their locality by identifying and studying a variety of monuments and remains, but also by collecting, with tape recorder or notebook in hand, the accounts of the older generation. In geography, the study of local farms, factories, lines of communication, types of housing, flora and fauna, etc., will be the starting-point of a more general investigation, answers for which will be found in the books of the 'working library', organized for that very purpose. For Freinet the principal goal in studying these subjects is to acquaint learners with the human adventure, the difficulties of the human condition and the progress of mankind towards a greater humanity.

ART

Just as written expression is motivated by life and the environment, so artistic expression, linked to life, provides the basis for the teaching of art, and in particular painting. Texts are illustrated and drawings are reproduced by linocut. Large pictures are painted, by one pupil or several. The works so produced do have their own particular style, as can be seen in *L'art enfantin*, a publication devoted to graphic art and poetry. It is characterized by the abundant use of colours and often involves flat patches of colour surrounded by dark outlines. It has been said that this very characteristic style is a sign of unconscious manipulation, detectable also in free oral and written expression. There is no doubt that Freinet's methods do call forth a particular style of expression – as indeed do traditional teaching methods – but the goals of the two types of teaching are different, as are the human ideals underlying them. The child will therefore be different, and so perhaps will be the adult of the future; such at any rate is the hope that inspires the educational innovator.

The transformation of the institutional framework

The application of these methods obviously requires radical changes in the institutional environment, beginning with the physical surroundings. Freinet built his school in Vence to suit his educational theories and specified how this should be done elsewhere, whether schools are to be purpose-built or adaptations of existing structures (Freinet, 1957). The design he suggests is simple and lends itself to creative interpretation by architects, also leaving room for creativity in cases where existing premises have to be adapted. The ideal school building comprises a central space comparable to the traditional classroom, but around it are arranged seven workshops to house specific group activities. Freinet described in detail how these workshops should be equipped for manual activities (woodwork and metalwork), domestic science, the 'commercial' activities of the co-operative, documentation, experimentation, reproduction (printing, typing, etc.) and art. In addition to these indoor workshops, the school has its own garden and farmyard.

In these new premises, school work as such is organized in a different way to that in traditional schools, where time is allocated according to the syllabus and subjects taught in accordance with an official curriculum that imposes a monthly apportionment of time by subjects and a repetitive daily timetable. The importance of unscheduled activities arising from chance occurrences in the environment, and the concern to develop pupils' independence, led Freinet to envisage a more flexible timetable, composed of broad segments of time for work by the whole class and individual 'work plans'. These plans are drawn up by each pupil at the start of the week and are considered to be commitments, personal work contracts. Within this general framework, ad hoc groupings can be set up.

Evaluation remains a constant necessity but takes a different form. Collective tests, administered at regular intervals as the pupils work their way through the syllabus, are replaced by techniques of self-evaluation in the form of grids to be filled out each time new skills are acquired. The traditional compulsory syllabus for arithmetic, spelling and grammar is presented in the form of more specifically defined skills in which the pupil tests himself each time he completes a given 'unit'. For this purpose 'self-correction files' are created for use by the learner, either of his own accord or following the teacher's advice as difficulties arise.

By means of these radical new teaching methods Freinet sought to enable his pupils to acquire the skills needed to pass the French state school system's primary and elementary examinations. He claimed that their results in these examinations were as good as, or even better than, those of other schoolchildren, with the fundamental difference that they would also have acquired a self-sufficiency and a social understanding totally absent in the pupils in the traditional system. All of these activities and the life of his school itself have been depicted in a now famous film, *L'école buissonnière*, made in 1949 by Jean-Paul Le Chanois based on a script by Élise Freinet.

The Freinet movement and the Secular Education Co-operative

Freinet's genius also lay in his full understanding, gained from experience before he raised it to the status of a theory, of the need for pupils' activities to correspond closely in form to those of teachers. The 'Freinet movement' is a co-operative movement, involving the voluntary pooling of ideas and materials, and emerging from the battles that were waged around Freinet and which wove the very fabric of the movement. The Secular Education Co-operative, an instrument for the production and the distribution of documentation and teaching materials, was a practical offshoot of the movement. In this way Freinet showed what could be achieved by the power of common purpose on the part of teachers in a hierarchical system that tended to leave the individual isolated *vis-à-vis* the inspectorate. It could be said that what characterizes the Freinet movement's co-operative school is the creation of an alternative power within the education system countervailing that of officialdom, just as within the classroom power is transferred as far as possible to the pupils themselves. Freinet also gave proof of the innovative capacity of his movement and its ability to create the conditions for progress in educational theory and practice. Whereas innovation cannot be promoted by official pronouncements, the Freinet movement provides concrete evidence that the free association of educational practitioners is a driving force capable of producing a multiplier effect.

What sort of philosophy?

As we have seen, Freinet was fundamentally a practitioner. His genius consisted in having brought innovations to the classroom and having been able to create both a movement and an instrument for producing the educational materials needed for the wider dissemination of his ideas and practices, thus demonstrating not only his sense of organization but also what might well be called the 'messianic' side to his character. Freinet believed that education was a way, if not the only way, to change humanity. He believed that his way, provided it could be generally applied, must be a means of social regeneration and of transcending exploitative, war-mongering capitalism. This is where Freinet the educator becomes one with Freinet the politician. Specific to his thinking is his desire to bring historical materialism down to the level of the classroom. The renewal of education, an essential prerequisite for the liberation of mankind, cannot be brought about by official pronouncements but arises from practices and technical processes which in a certain sense force renewal upon the system. Printing, which gives material form to thought and written communication, is the technical process *par excellence.*

But we must not look for academic writings by Freinet setting out the philosophy underlying his praxis in formal, theoretical terms. Freinet did indeed read a lot and write a lot. He described his way of thinking and acting in books such as *L'éducation du travail* (1949), *Les dits de Mathieu* (1949), *Essai de psychologie sensible appliquée à l'éducation* (1950), *L'école moderne française* (1946 and 1957) and elsewhere. Towards the end of his life he sought to bring specialists in the theory of educational research, of whom I was one, into his movement, working together on a journal, *Techniques de vie*, which enjoyed only a brief existence. His work as a whole is concrete and colourful, and also appeals to the emotions, but it is all the more difficult to pin down his underlying philosophy in that he never stopped developing and growing, assimilating and above all transforming the main trends of thought of his time, whether it be reflexology (cf. Élise Freinet, 1977, p. 143), cybernetics, programmed learning or structuralism. The rich intellectual background acquired from his teacher college training and his study for the primary inspectors' examination was further enriched when he later rubbed shoulders at congresses with Ferrière, Decroly, Cousinet, Claparède, Dottrens, Wallon, Barbusse, Politzer and others; but it was a long journey from his probably Marxist beginnings to the last years of his life when he was inspired, it would seem, by Teilhard de Chardin!

Freinet's basic philosophy is that which underlies what he himself called 'techniques for living'. This formula is a way of expressing a fundamental distrust of everything formal (as he would say, scholastic), everything forced and artificial, and a grateful trust in nature. There is a touch of Rousseau in this, but at the same time a countryman's wisdom, the wisdom that comes from permanent contact with nature, which believes in the virtues of work well done, is nourished by the human warmth of small communities and, above all else, loves freedom, freedom that takes a certain pride in honesty, devotion to duty and reliability. It is also an expression of love for children, concern for their development and their happiness. To appreciate the emotional roots of such a philosophy, one would have to spend a few days at the school in Vence, in this sunny rural setting, surrounded by laughing children running around half-naked splashing about in the clear waters of the ornamental pond; or to have lived – out of the holiday season, of course – in the mountains of Haute-Provence. It is here that a deep sense of integrity and human fellowship are forged – a far cry from bare-walled city schools with their asphalt playgrounds where children, finally released from their fidgety immobility, fight like wild creatures.

The theory underlying Freinet's techniques is set out most clearly and fully in his *Essai de psychologie sensible appliquée à l'éducation* (1950): for him the essence of his techniques is 'experimental trial and error'. Schools, of course, are there for learning, but the learning process is something that cannot be imposed from outside: 'You can lead a horse to water . . .' The essential input must come from the learner himself or herself. The urge to know is aroused by the obstacles encountered, by gaps in the evidence, by failure to understand and by searching for what will make understanding possible. To be effective, this search must be spontaneous, actuated by the internal need of the sector, and there will inevitably be mistakes along the way. It is by feeling their way, by trying first one approach then another, that the child and the adult achieve real learning. To the classical theory of trial and error learned from Pavlov, Freinet adds two essential points: first, the trial must be made in response to a need; secondly, success brings about spontaneous memorization of the successful procedure and its later repetition in similar situations; therein lies the essence of learning. In 1964 he was to go even further (Freinet, 1964): 'We claim that none of our acts results from an objective and scientific choice, as is often believed, but that they are all the outcome of experimental trial and error. This trial-and-error process governs all the acts of our life. It is the single, universal process of all life, and Teilhard de Chardin considers it to be the principal law of the universe.'

Here we find, refined and stated in general form, insights that Freinet had earlier detected in Ferrière, who was explicitly influenced, in his turn, by Bergson's 'life force'. The presence of dialectical materialism is also to be felt in this idea of spontaneous and irresistible progress, implicit in the universal growth of life. Certainly nothing is further removed from the monistic vitalism of Freinet than the classical dualistic rationalism that underlies traditional educational theory such as that of Alain.

What has Freinet to offer us today?

Freinet died in 1966. The national and international movement he founded did not die with him, a fact exceptional in itself and therefore worthy of examination, but his ideas, even those that have become part of official French educational policy, are still disputed. A clearer evaluation of the Freinet legacy requires, in my opinion, a consideration both of the possible effects of his techniques on teaching and learning, and of the philosophy on which those techniques were based.

TECHNICAL CONTRIBUTIONS OF CONTINUING VALUE

As far as reading is concerned, present-day conceptions take up where Freinet's original ideas left off, adding some further refinements. The importance of functional reading is no longer in doubt. It is true that speed-reading techniques and the inputs from psycho-linguistics, emphasizing as they do the importance of eye movements in the anticipation of meaning, have enabled Decroly's insights to be expanded, but the idea of situating reading, even while it is being learned, back within the flow of communication, as well as the idea of making the reading of documents a part of every act of school life, derives directly from Freinet. The proof is that the 'working libraries', as he imagined them, are still a prominent feature of French documentation centres, where such centres exist.

Present trends in mother-tongue or foreign-language teaching also derive directly from Freinet's ideas. Contemporary theories of language teaching have developed in several directions, but they all enlarge, each in its own way, on Freinet's educational insights. The objective description of teacher/pupil relations in verbal exchanges, begun in the United States by Flanders and then continued in Europe by Landsheere, Bayer and Postic, shows that the formal organization and regimentation that Freinet condemned still prevail in the classroom. It is still very rare for pupils to speak out of their own accord, and the possibility of linguistic creativity is virtually non-existent. Only classes on the Freinet model manage to avoid such practices, a fact all the more disturbing in that socio-linguistic studies have clearly demonstrated their divisive nature.

The lack of genuine communication effectively condemns working-class pupils to intellectual banishment from a universe of language that is totally alien to them. This results in under-achievement and dropping out, and in particular accounts for the anti-democratic manner in which schools operate. Here, too, Freinet was a pioneer, to the extent that his ideas on language teaching called for genuine communication, that is, for personal expression and a sympathetic ear.

Psycho-linguistic studies also lay increasingly strong emphasis on 'speech acts' and contexts of utterance. Real language learning cannot be achieved simply by the formal imitation of the language of the written text, but must come from the functioning, in given situations, of authentic communication. Modern foreign-language programmes concentrate on precise description of such situations and of the modes of language appropriate to them, and mother-tongue learning should also be based thereon. With this in mind, effective teaching practice must create a variety of communication situations in the school environment and must attune and adapt the means of communication to these various situations. This is just what Freinet was saying, and the technical studies carried out today do no more than build upon his prophetic intuitions.

The ideas now prevalent in science teaching also follow from those of Freinet. Genetic epistemology has studied the origin of scientific concepts and has shown the groping progress of thought at grips with reality. Bachelard's notion of the epistemological obstacle, linked to Piaget's and Wallon's ideas of genetics, bears out Freinet's view of the role of experimental trial and error in the development of scientific thought, which cannot be transmitted in finished, self-contained form but has to be built up by means of repeated readjustments of spontaneous insights. All progress comes about through experimentation and discussion. Science teaching cannot be limited to proving theorems on the basis of teacher-imposed observation; it must necessarily involve the element of surprise (I should at this point acknowledge how much my own book *Pédagogie de l'étonnement* owes to Freinet).

THE PHILOSOPHICAL SIGNIFICANCE OF THE TECHNIQUES

Some people are sure to argue that an overall educational approach of this kind, bearing the strong imprint of its rural origins, does not have much to say to us today. Vitalism seems well and truly dead when we look at the triumph of technology and the inroads made by rationalism, yet to judge by the rise of ecological movements in various countries and the call for a renewal of ethics to counter fanaticism and individualism, I think that Freinet has, on the contrary, a lot to say to us even today.

In the light of the demographic and technological revolution taking place in industrial societies, what indeed are the basic needs of pupils and teachers today? What conditions must be met for the education system to continue to operate?

One of the main purposes traditionally assigned to schools is to instruct, that is, to give children the knowledge and skills they need to understand their culture. Genetic psychology shows that abstract thought is dialectically constructed by working out operational schemata elaborated in concrete thought, which in turn depends on the conditions in which it is employed: the action of the body and the hand working to produce. Likewise, scientific psychology has enlarged upon the insights of 'active school' practitioners. Piaget's thinking drew upon Montessori and Kerschensteiner as, in different ways, did that of Claparède. The theory and practice of functional education precede, accompany and follow the psychology of functional learning. Contemporary ideas that distinguish between teaching (the role of the teacher), and learning (the role of the pupil), merely systematize the insights of those practising active methods, and Freinet's 'experimental trial and error' is the most complete intuitive form of an idea arising therefrom. 'Experimental trial and error' is an expression in simple words of what modern educational theories say in greater detail and in a more fully developed form. It is true that scientific theory does not proceed from philosophical preconceptions, or at least not explicitly, but the objective value of a theory does not depend on the specific conditions under which it came into being: falling bodies obey a law that has absolute validity, even though the Pythagorean view of the world underlying it is a disputable and unproven preconception.

What, though, is the present situation of the learner *vis-à-vis* this view of learning? Children today spend more time in front of the television than at school. The abstract urban universe they inhabit alienates and isolates them from the primal experiences of the country child of yesteryear. The growing of crops and the rearing of animals, the harnessing of the elemental forces of wind and water, the basic mechanical experience of machines worked by animal or human power, concrete measurements of length, capacity, volume and weight, the everyday relations and rituals of trade, all these and the way of life that went with them have been swept away by technological civilization. Television has turned contact with nature and with one's fellow beings into a form of entertainment. Electronic devices have endowed productive work with the character of magic: powerful effects are achieved instantaneously at the touch of a button. Children today 'consume concepts' without noticing it. The effects of these changes have yet to be fully weighed, but there is a presentiment abroad that this kind of civilization is making human existence more and more fragile, and a suspicion that only a very few specialists are now able to understand this universe of passive, almost magic, consumption.

There is a case for saying that henceforward the role of schools will increasingly be to provide children with those basic, concrete experiences that the natural environment used to provide: growing things, keeping animals, building simple machines, all of them activities indispensable to the laying down of concrete operational schemata from which abstract conceptual thinking develops. Here we come up against a paradox. Freinet wanted to bring life into schools at a time when they were the bare-walled temples that Alain speaks of. Knowledge could then build itself up in a seemingly abstract way, because it was naturally rooted in concrete experience gained outside the school. Sure enough, the transition from the practical context of the fields or the workshop to the intellectual context of the school was not automatic, but it was possible because it entailed the reprocessing of that spontaneous practical experience. Today the movement is in the opposite direction: if the school is to be a life environment, it must provide a foundation course in those basic experiences that the child can no longer obtain outside. Freinet's techniques are more valid than ever, indeed they have become almost obligatory.

Similar demands are placed on schools in the area of socialization. In today's society, channels of communication proliferate, space and time are abolished by the telephone, television and air travel, and yet urban life places individuals in such proximity to each other that people, including children, have never been so isolated. There is thus an increased need for genuine communication and for meeting places that are centres of community life. Here too Freinet shows the way: the co-operative classroom is a place for living, and children are happy there because they carry out common projects.

Humanity today is more and more acutely aware of its limits and of the danger of unreasonable exploitation of the world's natural and human capital for the sake of instant gratification and to assuage the thirst for property and power. The idea of a return to, and a revitalization of, the basic values of love for others and love of nature, as against love of property and power, is beyond doubt the only philosophical route that can now lead to universal awareness of our finiteness and our fragility. Whether or not such a return is based on a mystique of human destiny is of little importance for lines of day-to-day conduct in political and educational matters, given that 'techniques for living' education is the only kind that can lead to such an awareness and such a return to fundamental values. To seek individual self-realization in the child's own activities and through the child's experience of living in a community, to develop respect for humanity and nature, to advance knowledge in and through co-operation, all these objectives are in stark contrast, today as in the past, to the selective, teacher-centred education characteristic of a civilization geared to productivity and to the frenzied exploitation of nature, and whose only goals are the possession of worldly goods and power over people. But what might have seemed an idealistic dream fifty years ago is today the only possible road to survival for vulnerable, precious humanity. The choice between them, formerly a matter of aesthetics, has now become a vital necessity. Now more than ever Freinet opens up to us, in education, the path of reason and feeling.

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Afterword

From this special number of *Prospects*, the International Bureau of Education assumes responsibility for this review. Zaghloul Morsy, its editor for more than twenty years, is leaving us to enjoy a well-deserved retirement, one which we all know will certainly be very active. He is leaving us a legacy of immense value, but a very demanding inheritance: that of maintaining the intellectual rigour, a respect for diversity and the ability to adapt to change which, under his direction, have been characteristic of *Prospects* throughout these years.

To maintain an intellectual rigour such as his on education is a rare feat. Education is one of those fields in which everyone believes they have an opinion to express or an action to undertake. It is also very common to give way to the influence of subjective opinions or those of technocrats. Zaghloul Morsy has avoided both of these dangers by adopting an interdisciplinary approach, by balancing the outcomes of research with the first-hand accounts of decision-makers, and by making the columns of the review open to a constantly renewed debate.

It is easy to proclaim respect for diversity, to observe it is less so. Zaghloul Morsy has been able to demonstrate that diversity can be recognized in all its dimensions and *Prospects* can justifiably congratulate itself on being a review of education and not a periodical reflecting a certain pattern of educational thought or entirely devoted to educational trends in this or that region.

To adapt to changes without giving way to momentary fashions has been particularly difficult in recent years. But Zaghloul Morsy has avoided this by resorting to the antidotes of history, of philosophy and of his training as a humanist. The 100 texts on *Thinkers on Education* brought together in these special volumes are the best illustration of the harmony that *Prospects* has always been able to maintain between the past, the present and the future.

The International Bureau of Education takes up the challenge at a very particular moment in its history: that of the twenty-fifth anniversary of its integration into UNESCO. Beyond any rhetorical declaration, the facts will go to show our ability to keep *Prospects* on course. Modestly, but with deep faith, we undertake to respect the three principal guidelines typical of Zaghloul Morsy's work:

rigour, a respect for diversity and an ever-present openness to new developments in education. In order to achieve this, we are basing ourselves on UNESCO's immense capital and we are certain that we can also count upon the support of Zaghloul Morsy.

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Too often, when people speak of the 'founders of education' they have in mind o thinkers and pedagogues who, in the West and elsewhere, have devoted themse education to the exclusion of all else: in short, education as a game preserve o fief. Yet philosophers, politicians, sociologists, scientists, theologians, novelists, historians, poets and essayists, of every period and culture, have had much to sa the subject of education.

How is one then to understand in depth, through its successive strata, the philosophy that underlies a particular system of education if, beyond the play of fashion, the surface eddies and the ups and downs of politics, one knows little or nothing about the thinkers who inspired it?

Clearly, there is a need to fill a gap by bringing together in a single work monographs presenting and appraising, in our own terms and with the tools available to us today, the great figures who, in one way or another, have left their mark on educational thought.

Here then, to fill that gap, are 100 essays written by internationally, regionally or nationally recognized specialists. If they are not always of the same mother tongue as the thinker they are writing about, they nevertheless master that language and thus are perfectly familiar with and have direct access to his or her work.

Far off, in terms of time, the most ancient of the thinkers studied is Confucius; in our own day, figures still very much alive continue to animate, directly or indirectly, the universal debate on education (Freire, Husén, Illich, etc.). In the intervening period, as we progress through the pages, twenty-five centuries will elapse.

As regards geographical space, the reader will come to know China, Japan, India, the Near and Middle East (Iraq, Persia, Syria, Egypt, Lebanon, Israel), the Maghreb, Greece, the Balkan countries (Bulgaria, Croatia), Italy, Spain, Portugal, France, Switzerland, Belgium, the Netherlands, England and then the United Kingdom, Denmark, Sweden, Germany, Poland, Hungary, Czechoslovakia, Russia and the former USSR. We shall have touched down in Africa and made stopovers in Argentina, Brazil, Chile, Cuba, Mexico, Uruguay and Venezuela before reaching the United States.

This search for the universal is aimed at compelling, as it were, the reader to open his or her mind to other cultures, to want to know them, not through clichés or approximately by allusion, but in some depth. Accordingly, while this collection may constitute a forum within which some 100 thinkers hold a dialogue, contradict each other, rebut each other and, ultimately, enrich each other by force of their very differences, it is also in a way, and for this very reason, a cultural provocation.

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